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COLMAN'S RURAL WORLD

NOBMAN J. COLMAN, EDITOR

Published every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmer D. Colman 520 Temple Court, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is published at one dollar a year, it has temporarily allowed old subscribers to send actually NEW OR TRIAL subscribers with their own subscriptions at fifty cents a year in order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, presswork, folding, wrapping, mailing and prepaying the postage, saying nothing of any other of the large expenses of maintaining offices, paying salaries and conissue, shows the month subscriptions expire, and renewals should be made two or the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the patronage and prosperity it now does. Its circulation is increasing in a wonderful degree, and its advertising patrons, many of whom have used its columns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get

Were the ravages of the disease confined to the bovine race it would be serious, but when we contemplate the annual de struction of human life by this cause, to fail to make use of any accredited means of restricting the spread of the disease is

HELP OUT THE PASTURES.

Farmers are more and more understanding the value of a continuous supply of succulent foods for stock, and there is much effort on the part of all the experiment stations to test the value of for-age crops that will tend to prolong the pasturage season. Most of the grasses now in common use are injured by the smal summer drouth, and then the pastures are dried up. The value of the cow pea as an adjunct to the pasture is being recognized, and farmers will do well to study the adaptability of this crop to their localities. Cow peas may be sown after grain is harvested, and will grow if there is moisture enough to m. The seed bed should be firm. While they may be sown broad-cast, yet most farmers prefer drilling

WE ARE ALL HIRED HANDS.

We publish the conclusion of Mr. W. D. Wade's thoughtful article on the Hired Man Question on this page, and canno refrain from expressing the opinion that it is a very helpful, thoughtful article— one which should do employers and hired hands good to read. Of course, we know that Mr. Wade's, Mr. Marshall's, Mr. Shattuck's and all the other excellent articles on this subject that have been published in these columns during the past few months will not settle and eliminate the hired man question, yet we cannot but think that they have done good to many a reader who employs farm help and others, who are at present 'hired hands."

The present writer has been a hired arm hand, has also been an employer of hands. We agree with Mr. Wade that we are nearly all "hired hands. AGRICULTURE IN RURAL SCHOOLS.

It is, of course, obviously impossible for a paper to make its position on all questions of interest to its readers clear in each and every issue; so it is not strange that Mr. T. B. Harwell of Tenessee should not know from reading a sample copy" of the RURAL WORLD how long and earnestly it has contended for just what he pleads in his able article on this page, namely, the teaching ducting such a paper in a large city. Re- of the elements of agriculture in our rumewals, unless accompanied by one or rai public schools. We question if there more NEW subscribers must be at one dollar a year. All names are dropped as than has the RURAL WORLD, and the soon as subscriptions expire. The month named on the address tag, pasted on each issue, shows the month subscriptions exused to be looked upon as a "crank," and our ideas were said to be "nice in theory but impractical." But we are glad to state that the proposition to teach elementary agriculture in the rural schools is rapidly becoming very popular in Missouri, and our State Department of Education, co-operating with the State Agricultural College and State Board of Agricultural College and State Board of Agriculture, is making preparations to put work of that character into the schools, as will be seen by the communithree weeks before, so that names shall but impractical." But we are glad to not drop out of Mst. It is gratifying to the proposition to teach elementary agriculture in the rural schools schools, as will be seen by the communication from Superintendent Carrington in

the RURAL WORLD of June 5.

We will continue to press this matter and will be pleased to have the assistance of so able an advocate as Mr. Har-

firm. While they may be sown broad firm. While they may be sown broad firm. While they may be sown broad firm. If all the tubes are used a fire for again to pick a mess of beans or peas, will spend as much time chasing butter-frommend thing every other drill the mine. The firm of the first them in the secured in the secured in the secured in the first them in the first them in the secured in the first them in the secured in the first them in the secured in them in the secured in them in the first them in the secured in them in the secured in them in the first them in the secured in the secured in them in the secured in the sec

into the office in response to a call for a messenger boy. He was obliged to wait while a telegram of ten words was written and the address of the party to whom the message was sent, together with the Monage of the party to whom the message was sent, together with the message was sent with the message was sent

PEBBLES FROM THE POTOMAC.

will be haif a million copies, all of which has a ware reserved for the exclusive use of Congress, with the exception of 30,000 copies, which are for the departments. Those who desire copies must apply to their Senators or Representatives in Congress. It is safe to say that this publication will be replete with valuable and interesting articles, treating as it does on a variety of subjects of interest. tending its sphere of indusene. It will do
for others what it is doing for you, so get
others to join the great RURAL WORLD
array and reservice the same beared.

The summer meeting of the Missouri
Rordicultural Society, held last week at
New Haven, No. was well attended, and
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THE TUBERCULIN TEST.

THE TUBERCULIN TEST.

The summer meeting of the Missouri
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have of this state and the state of the province of the
have the state of province of the state of the province of the prov does on a variety of subjects of interest in the premises.

the crop depended upon for forage or the day as well as it did young men are one to balance the corn ration has been ager to engage in commercial enterprises eager to engage in commercial enterprises cause neither our farmers nor our public ground is loose and fine.

These are a few cases where the peas were grown simply as catch crops, and in the hope of winning wealth. We hear of one is constantly hunting a job and picking up and moving. As good a hand as were grown simply as catch crops, and in the hope of winning wealth. We hear of one is constantly hunting a job and picking up and moving. As good a hand as were grown simply as catch crops, and in the hope of winning wealth. We hear of one is constantly hunting a job and picking up and moving. As good a hand as were grown simply as catch crops, and in the hope of winning wealth. We hear of one is constantly hunting a job and picking up and moving. As good a hand as were grown simply as catch crops, and in the hope of winning wealth. We hear of one is constantly hunting a job and picking up and moving. As good a hand as were grown simply as catch crops, and in the hope of winning wealth. We hear of one is were grown simply as catch crops, and in the hope of winning wealth. We hear of one is were grown simply as catch crops, and in the hope of winning wealth. We hear of one is were grown simply as catch crops, and in the hope of winning wealth. We have the hope of winning wealth with the hope of winning wealth. We have the hope of winning wealth with the hope of winning wealth. We have the hope of winning wealth with the hope of winning wealth. We have the hope of winning wealth with the hope of winning wealth with the hope of winning wealth. We have the hope of winning wealth with the hope o wholly or partially lost, try a few cow peas, a sorghum patch or one of sweet corn.

We ask particular attention to C. D. Lyon's article on cow peas on this page.

THE HARDSHIPS OF THE FARMER BOY.

Many boys reared on the farm are prone to think their lot is especially a hard one. Many of them do have to rise before the sun and keep at it until after the sun sinks to rest; and for the boy whose life all work and no play we have that kind of sympathy which the boy wants

who succeed and given full value, the fact results of the done in the public schools. It nine-tenths of the education in the farm are prone to think their lot is especially a hard one. Many of them do have to rise before the sun and keep at it until after the sun sinks to rest; and for the boy whose life all work and no play we have that kind of sympathy which the boy wants

Who succeeds, but of the many who fall who have to tile are thought of the many who fall who succeeds, but of the many who fall who succeeds in life must toll, be it in the counting-room or on the farm. To succeed, means perseverance. "Difficulties to be for the sun and keep at it until after the sun sinks to rest; and for the boy whose life are things that there is plenty of hard work life or a farm have been discussed in the public schools, it is obvious that a large majority can not be reached to the farm. To succeed, means perseverance. "Difficulties to be dover to who succeed, means perseverance." Difficulties to be overcome.

Were active further care few cases water the peas were grow simply as catch crops, an is all work and no play we have that kind of sympathy which the boy wants us to feel and taotfully show in a tacit manner, but never talk to him about. But we contend that the chances are between the farm than the city—equal amount of energy and manner, but never talk to him about. But we contend that the chances are between the farm than the city—equal amount of energy and in the city—equal amount of energy and limit the city—equal amount of ene in the city—equal amount of energy and less of beans or peas, acres grow gradually into a broad farm in time chasing butters being exercised. A few acres grow gradually into a broad farm in the city—equal amount of energy and almost entire absence of such. Now, friends, suppose that someone would offer to sell you a ton of high-ing, put something in their minds to think about whilst we can control their educations. The empty mind of an adult is and you would be doing a wise thing in their minds to think about whilst we can control their education. The empty mind of an adult is and you would be doing a wise thing in their minds to think.

bee, etc., etc., are a boy's temptations to forget the set task. The scoldings and often good opportunities are thrown to the punishments that follow we well the winds in an un'ue haste to better know; but despite them, most farm boys surrounding conditions. We believe the are permitted to leisurely do the chores farm offers better inducements to the required of them, and they are not compelled to keep up the galloping pace that makes boys develop into machine men.

Contrast shows us things that we often fall to see when the case is kept isolated; sometimes and a condition that requires think of the little city lad's obligation to hurry. A bright boy of about ten stepped struck the key-note of success, which

the message was sent, together with the signature of the sender. Not five minutes were occupied in the writing. The little fellow nervously picked up the message and hastily started for the door, when he rushed back, saying: "Oh, write I had to wait." Such exacted promptness characterizes the life of these messenger boys, and those in other lines of activity in the city. They must respond to the demand and ever be on the rush to the demand and ever be on the rush in order to keep their positions, or the boy waiting outside for a place steps in and is employed. And the result is many fall into a tread-mill existence which destroys individiuality. Don't think a city boy's life all fun, and yours all work. There are two sides.

If triumph, because they know there is no keeping him down. "Does he keep at it—is he persistent?" This is the question which the world asks about a man. Even a man with small ability will often succeed if he has the quality

Editor RURAL WORLD: The Year Book of the U. S. Department of Agriculture for 1900 is now in press. This publi-Book of the U. S. Department of Agriculature for 1900 is now in press. This publication will be ready for distribution about the first of July. In addition to the report of the Secretary and the appendix, this is a move in the wrong direction, when the subject of the sural population drifting cityward is a move in the wrong direction, when the subject of the sural population of the sural or the secretary and the appearance of the secretary and the secre

has been lost, it requires pluck to plant another the same season, but here is just where many a man in the commercial world wins success. He rnay have debt pressing him, yet he will try another line and win.

Some of these crops can be planted late as July 1, and give good results. If the crop depended upon for forage or the one to balance the corn ration has been wholly or partially lost, try a few cow tural college are doing so, whilst the stopped, as there the best tomato plants

school as you do grammar, geography, but it will etc., and there will something useful re-main, when all else of the public school the land a education has faded from the average as July 1. pupil's mind except the little practical se of the three "R's" for which he has daily use.

But I shall weary your patience in my

desire to do good. Please excuse the lib-erty I have taken, but don't forget this

ine of paramount usefulness.

Giles Co., Tenn. T. B. HARWELL.

Then. Then. HARWELL at farms. They hire for an indefinite time at a stipulated price per month, and at any time they become dissatisfied, they give me a month in which to relieve them and I shall give them not less than a month's notice when I, from any cause, times said that "on our strong clay loam soil we do not really need the cow pea." Now I am going to correct that statement right here and say, that as we better understand the cow pea and its uses, we better understand the cow pea and its uses, we better realize its value on any and all soils, and as we break up some outlying spots of the richest, strongest, toughest clay on the farm where we grew cow peas last year we find that it is on just

washington, D. C. S. F. GILLESPIE.

AGRICULTURAL EDUCATION.

Editor RURAL WORLD: I have before me a sample copy of the RURAL WORLD. After careful examination, I am much pleased with it, but I am too old to add another, however excellent, to the list that finds its way to my table.

I have been giving my best thoughts to the education of the farmer for 25 years, and I heartily agree with you that if agree and one-half feet apart. They were given and one-half feet apart. They were given will not want long enough to groen, and, as far as I know, in every will take his family into a little cane or two room "box" shanty for a home for a bound take his family into a little cane or two room "box" shanty for a home for a well take his family into a little cane or two room "box" shanty for a home of a bounder, though they were in some cases very small, mold-ded. My remedy for this would be two with everything desolate and dreary. Such homes may answer a few months of a point last year where we ran out of seed oats. Said I, "no matter, the oats would all fall there anyway, and we will it has much to do with the efficiency of he man." Show me a hand whose house-lost feed outs. Some years ago an employer said to me, "if you get a hand with a good wife it has much to do with the efficiency of he man." Show me a hand whose house-lost feed outs. One heeling and the wolld end that the plant does the best work.

DOES SORGHUMI IMPOVERISH THE SOIL? Decidedly no; at least not to the last thought. The roots run very deep and bring to one heefer of the bundles, though they were in some cases very small, mold-ded. My remedy for this would be to with everything desolate and dreary. Such homes may answer a few months to the set it might be, for no one can afford to mo, "if you get a hand with a good wife it has much to do with the efficiency of bound it is all right.

DOES SORGHUM IMPOVERISH THE world will not want long enough to grow a man you will not want long enough to grow a man you are in the clay of the would elt. In the cone of

Were elementary agriculture taught to every boy in our public rural schools, we should have thousands of inquiring, think-continue to plant as long as we have a

tion have given me the right to talk I do not plant more than 25 pounds per about these things; yet I feel that I am peresumptuous in thus writing to you.

I believe that such study in the schools of at least a bushel and a peck per acre. would soon set all our agricultural population to thinking along progressive agricultural cultural lines. It would make agricultural education in our homes as familiar as a what we have cut and cured has been shell surely not success or he shall su

education in our homes as familiar as a household word and would give a new aspect to it and book farming.

Tom Reed, of Congressional fame, has recently said: "It takes education to appreciate education." Force the elementary study of agriculture in the public school as you do grammar, geography, etc., and there will something useful resolution, when all else of the public school the land as fertilizers, and even as late education has faded from the average as July 1.

But at urge all who have their needers for the benefit of the solution or plant cow peas for the benefit of the soll. Of course, one can get much more ary study of agriculture in the public school etc., and there will something useful resolution to plant them to go down on main, when all else of the public school the land as fertilizers, and even as late in the season as possible and have their more than satisfactory.

Editor RURAL WORLD: Whilst your readers are experimenting with tobacco, bi-sulphide of carbon and other remedies for bean weevil, let them met lose sight of the cheapest and best remedy of all, that is to plant later in the season. For seed and for cooking dry, plant beans and peas as July 1.

C. D. LYON. C. D. LYON. Brown Co., Ohio.

THAT HIRED MAN QUESTION. (Concluded from Issue of June 5.)

Editor RURAL WORLD: A dissatisfied

plowed under and the plowman remarked farm get more free advertising than on the excellent condition of the soil as compared with the oat stubble where the soil is of a much finer grade.

Trying to see how late over

squandered in that moving outfit would have furnished a very scantily clothed family with abundant winter clothing, and his wages would have been unbroken; but he was the moving kind, having the

begin with. These men have no apology to make for their humble start, rather,

some able and useful agricultural journals that could take up this matter and hogs have left, and grow the best crop of inaugurate a grand revolution in the premises if they would. I believe the RURAL WORLD is one of them.

I feel like my experience and association below the company of the

the crop mature, and you will have trouble with weevil. Try this once and

port.
VALUE OF WOOD ASHES.-Would it not be correct to say to every one culti-vating clay land, "You cannot use too many ashes." This is the experience of farmers hereabout, as far as I know. If I keep two men with families on separ-ate farms. They hire for an indefinite conditions to ascertain whether it will pay

and one-half feet apart. They were given turnip crop.
one hoeing and the whole crop allowed to turnip crop.
There are "unprofitable servants" in all material that largely compensates for the spring the rotten mass of vines was walks of life, but I think those on the spring the rotten mass of vines was walks of life, but I think those on the plant food used in making growth. It is stated positively by those who have tried the plant food used in making growth. It is stated positively by those who have tried to the plant food used in making growth.

AN OREGON LETTER.

Crops of all kinds look well, although oats will be rather short. Some that were intended for grain will be cut for weeks. Cheat and oats are raised for hay; no clover or alfalfa.

Rain is needed, but is not likely to come as the dry season is almost upon us. On May 25 a hallstorm visited the head of the Williametta Valley, doing much damage over an area of 10x15 miles.

In the Umpqua Valley rain was accompanied by constant but not loud thunder. Both hail and thunder are un-

Wild strawberries are plenty but small moving habit. Three or four months were long enough for him at one job.

Men of experience tell us that it's the stayer in anything who makes a success.

A Portland man went by the other

Southern Oregon is anxious to drill for

The Dairy.

I am pleased to see the good showing of the Hosmer Dairy Farm; considering the number of cows, this is a good record. I would like to see more such re before the RURAL WORLD Now I will give the financial results from 34 cows and heiters since our cream trade has opened up. The first week in May our cream and milk sales, wholesale, our crosm and milk sales, wholesale, amounted to \$60.00. Butter same period 224.12; total, \$83.21. If the butter cream were sold as cream the sales would have footed up to \$100. We expect to make weekly sales average \$100 by June 1, as m trade will take our entire pro duct by that time, and several dry cows and heifers will be in milk by that date. "BUFF JERSEY."

DAIRY DATES.

The Jerseyman Corrects the Missourian

Editor RURAL WORLD: Referring to the article, "Science in Dairying," by C.
L. Willoughby, of Missouri Agricultural College, published by you in your issue of May 29th, I would say that in one or two particulars he does not seem to be quite correct. For instance, he states centrifugal Cream Separator was invented in the year 1875, and "about the

In the official book on the "People and Industries of Sweden," published by or-der of the Swedish Government in the ning of 1900, I find: "It was in 1866 that the ice method invented by J. G. Swartz made practicable a system suitable for creaming on a large scale. This method, by which the rising of the cream was hastened by plunging the deep cans alk into freezing water, quickly at throughout Sweden, and was not spread throughout Sweden, and was no slow to be adopted in Norway, Denmark Finland, Germany, Austria and other The idea of the Cooley and us, seems to have been taken from

The Swedish official book continues: 1880 the ice method has little by little given place to the centrifugal sep-arator, which is now employed almost exclusively with us. It was invented in 1978 by the celebrated Dr. Gustaf De Laval, and from time to time since has un-dergone modifications and improvements dergone modifications and improvements by the adoption of the "Alpha" system, nvented by the ingenious German, Baron on Bechtolsheim, and the distribution device, invented recently by the American, Mr. Berrigan," etc., etc.
It would seem, therefore, that the cold

water or ice system of deep setting was some fifteen years before was invented, and the introduction of each system in this country was only a year or two after their first invention of the two methods was not ly provided. Stockmen thought the trousimultaneous, as Mr. Willoughby states. ble was caused by too great a change in The adoption of the two methods was not simultaneous, as Mr. Willoughby states. ble was caused by too great a change in It was not until about 1899, twenty-five years after Swartz's invention, that pracout for an airing or for water each day; furning, hand machines for farm use were perfected, the early centrito the stable outfit and the stock confined fugal separators being all for steam in an abominable atmosphere for weeks just what their cows were doing for them,

With the following further quotation from Mr. Willoughby, my experience and differently. The heavy breeds of beef observation leads me to thoroughly agree, tattle are usually phlegmatic in disposition. "But the losses are still so great by this system (deep setting) during the year, that the use of small sized separ-ators at the farm is increase. ators at the farm is increasing rapidly at the present time, and the separator sys-tem is destined, on account of reducing losses to the absolute minimum, to come tem is destined, on account of reducing losses to the absolute minimum, to com-into use in every dairy district."

Monmouth Co., N. J., June 3, 1901.

MODERN COW-BARN CONSTRUC-

Former Unsanitary Stables

Editor RURAL WORLD: The proper of domestic animals is receiving systematic consideration as never Investigations are being conducted by means of careful, practical iments by men who are thoroughly reant with the subject from a prac-as well as scientific standpoint.

Mr. F. A. Converse, who has charge the live stock and dairy departments at the Pan-American Exposition, is a pioneer in this important field. He is dem onstrating to the multitude at the Expo sition by actual working models, how it ossible to build a really some a very reasonable amount of money. is possible to build a really good stable

our northern climate, warmer sta-have for years occupied the attenof our best farmers and stockmen and bank barns have been the outgrowth ce of having all stock under one roof, tucked carefully away from the cold, with plenty of feed overhead ready at all times to find its way to mangers and food racks by gravity, proved very alluring to ambitious farmers all over the Animals housed in these exdungeons were not happy and ofiture in watery eyes, ustreless hair, hot noses and hot, feverish breath with fretful, quarrelsome actogether with their inability to or fatten. Too frequently cattle ed were attacked by bovine disease germs which were materially assisted in their work of destruction by condi-

There Are 2400

Disorders incident to the human frame of which a majority are caused or promoted by impure blood.

The remedy is simple.

Take Hood's Sarsaparilla. That this medicine radically and effectively purifies the blood is known to every druggist, known to hundreds

Will do you good. Begin to take it today



DOLLIE FREW.

Two of the Cedar Hill Jersey Herd.

Editor RURAL WORLD: I often find the finest heifers I ever saw. In her beginners in the breeding of dairy herds three-year-old form she has reached over who are discouraged by the reports of men old in the business. Especially discouraging to them is the fact of men with large means owning such superior animals. I write from the standpoint of a stick to your good cows and every heifer water of lighted means.

her five-year-old form she produced for answer is, these calves and helfers are us 15 pounds and nine ounces of butter in seven days, which places her in the and from our best cows. We know just class usually above the rank of such to a pound of milk what these cows have plug dairymen as I am. She would be out of my reach sure enough if one of the period of years; we always have the daily out of my reach sure enough if one of the big fellows owned her and I wished to buy. The other, a helfer, is of our own raising or I should say of our herd manager's raising. My son, now 18 years of age, took her in charge the day she was born, away down in Tennesee, and I do not think she received a single feed at the heads of anyone else during her calfthe hands of anyone else during her calf-cows and heifers for sale, enough of them hood. When she freshened as a two-so that we can sell in car lots, the buyer year-old our 15-year-old son took her in hand, and from that day to this no one yield of each individual, and will not else has milked her a single time, and buy a pig in a poke. What we are doing

grand old sire, King Koffee, and is one of

invention on the other side. tions so expensively though unintentional-

Atmospheric conditions affect anim tion, paying but little attention to ordi-nary disturbances; these suffered less in consequence, though it was noticed that they did not benefit from the quantity of feed as they should. Milch cows of a highly nervous organization are more sus-ceptible to incipient diseases caused by objectionable surroundings than any other domestic animal. Not until progressive cientific men spent much time and money in investigations and experiments was the trouble traced to its true source Analyzing stable atmosphere led to the detection of harmful bacteria in incredu ous numbers. Scientists engaged in the work were slow to give out the result of their first investigations, thinking that the conditions under which they were working might be abnormal. Prospecting further and while endeavoring to learn the cause they found conditions in these cellar stables particularly favorable to the propagation of the stockman's worst enemy. Harmful bacteria delight in a dusty atmosphere, especially when it is mpregnated with moisture; when a share of the dampness comes from the moistre-laden breath of animals that are obliged to breathe the same air over and over again, bacteria conditions are com-

Bank barns are always damp and always dusty; owing to their construction they never admit sunlight in quantities sufficient to be of any use. Sunlight is more money for the milk of three of the destructive to all forms of harmful bac-

to the complete elimination of the troubles as set forth along these lines.

A model stable on the Exposition

troubles as set forth along these lines.

A model stable on the Exposition grounds, in which is confined a number of different breeds of the best dairy cattle in America, will demonstrate to the mil. in America, will demonstrate to the ilions of Pan-American visitors how a really good stable may be constructed at a low cost, that is warm in winter, cool Total cows n summer and sanitary and hygienic at

Public opinion, backed by government milk inspection, has resolved itself into a strict censure of dirty, antiquated methods. City milk supply is now traced to its source, the cows examined for condi-tion and health and the stable for cleanliess. If incompetency or indifference has led the dairyman to disobey the state sanitary requirements he is not permitted to ship his milk until he satisfies the in-spector that he has mended his ways. This course was made necessary by the rapidly increasing volume of business which is conducted by such a cosmopolitan class of people; comprising, as it does, all grades of producers from the most dairymen to the ignorant huckster. Clean-liness is required by inspectors first, last

Buffalo, N. Y.

breeder and dairyman of limited means, calf, develop the helfers and study them; and illustrate this article with a picture of a pair of Jersey cows showing that it is not always a large bank account that of first freshing is the most critical enables a dairyman to own some good time; a mistake then may mar any animal's future usefulness.

The larger of these two cows is a registered Jersey. She came into this herd as a two-year-old at a cost of \$55. In Why don't you sell some of them? My I am often asked by visitors: What are

in that length of time not an ounce of milk has been drawn from her udder but and stick to the helfers, and you will have just as good cows as three figured.

This helfer is a grand daughter of the Warren Co., Ill.

TEST YOUR COWS.

The Wisconsin University Creamery, at Madison, is at the present time receiving 9,000 lbs. of milk per day from 80 patrons. Prof. Farrington, who has charge of the creamery work, sent the following circular to them on May 1:

"The University creamery has been test-ng the milk of cows owned by patrons for the past three years. A box of sam ple bottles is sent to each farm where testing is desired, and the milk of each cow in the herd is weighed and sampled once in two weeks. These small samples of milk are returned to the creamery in the box and each is tested. A record of he weights and the tests is made in a cook which is sent back to the patron and he can then see how well some of his cows are doing and what a poor showing others make.

roved that some of the cows produce butter enough to pay a handsome profit to the owner, while others that require the same feed, care and time spent in milk-ing do not make butter enough to pay for the feed they eat. The owner is often working his farm and supporting a few cows as boarders that do not pay their

tested for three years. Five patrons have been testing two years and eight patrons tested the cows on fourteen of our pa-The records obtained are of great value

to the man who owns the cows because he finds out which cows give milk enough to pay a profit and which ones are living on the profit of the good cows.

"One man who kept twelve cows go cows than he did for that of all the other structed should admit the direct rays of

Herd Herd No. 2 No. 3. \$66.08 \$88.16 \$47.25 \$43.79 \$5 No. 6. Herd Herd Herd ...\$51.28 \$77.21 ...\$28.40 \$39.32 ...\$28.40 Herd No. 4. \$58.70 \$31.90 7 No. 7. Herd \$48.26 \$22.35 "It pays well to milk cows and it pays well to have the cows tested."

ENSILAGE.

At a farmers' institute in Illinois lately one of the delegates related his brother's experience with ensilage. He had been who is well known as a lecturer and writer on dairy topics, said he had the same experience last fall, and he knew several other large feeders who had found similar results when they changed from ensilage of thousands of people who themselves or by their friends have experienced its curative powers.

The worst cases of scrofula, the most agonizing sufferings from salt rheum and other virulent blood discusses, are conquered by it, while cases, are conquered by it, while those cured of boils, pimples, dyspeptie and billious symptoms and that the science of the dirt upon which they peptie and billious symptoms and that the science of the dirt upon which they have and faaling are numbered by millions.

In the sile is required by inspectors and all the time; thus making the right start, for cleanliness leads to many virtues. A man who is particular about all utensils, his wagon, stable, cattle and himself will not tolerate a poor stable or a unhealthy cow. He may not understant the science of ferments or disease germs, but his milk supply will be good and wholesome, because he robs harmful bacteria of the dirt upon which they thrive.

It is intended in a series of these artical the fine pasture than the future of agriculture, the and other land on the farm. He has a half dozen silos, and last year put up 750 tons of ensilage, and had not got enough the fall ozer as pour a year in the silo, and could not see that it was not just as good for the cows as that put upon in Putnam county to act as judge on a butter exhibit. He found one lot that was a point higher in flavor than any other, and called attention to it. After the meeting a farmer claimed that was secures a higher price for his crops, and the fed no fodder but the fertilising ingredients of the manure. any other, and called attention to the meeting a farmer claimed that was secures a higher price for his crops, and his butter, and said he fed no fodder but her fertilising ingredients on his butter, and said he had been the laughing her meeting a rectific avanches. stock of the community for doing so.

The official report of the Pan-America Model Dairy test for the week ending May 21 was not completed until Tuesday on which day the same was given publication. The report for the out for publication. The report for the week ending May 28 will not be completed in time to appear in this issue, but we are informed that very shortly they will have sufficient help at the Model Dairy of-fice so that the reports may be made within a few days after the close of each week's test.

PAN-AMERICAN DAIRY TEST.

close of the third week finds the Jerseys crowding to the top; from fifth place in the first week to second place in the third, should convince the skeptical that while the queen of the dairy has een temporarily displaced, she has not y any means been dethroned. The posi-ion of the herds as they stand at the close of the third week, also the positions they held in the first and second

Guernsey \$11.08
Jersey 10.53
Ayrshire 10.34
Holstein 9.29
Red Poll 8.84
Brown Swiss 8.30
Shorthorn 8.10
Fr. Canadian, 7.40
Pelled Jersey 6.67
Dutch Belted, 2.79 ..\$11.66 ...10.21 ...10.72 ...8.86 ...8.29 ...7.85 ...6.36 ...6.36 ...4.96 ...1.96 By the above we may note that all breeds with exception of Guernseys and

Ayrshires made marked gains. The Guern-

seys losing 54 cents in profit, the Ayr-

shires 38 cents. In the official report for week ending May 21 we find three additional cows milk ing, neither, however, for the full week. Ora the Polled Jersey did not come out of calving in very good condition and therefore has not yet come to her full flow of milk, while the Dutch Belted cows, Bell of Warwick 2d and Madeline began milk-ing about the middle of the week. The next week will show a marked improve ment in their records.

The churn tests were made during the past week, but owing to some discrepancy in one of the tests they were all called off nd a new test orderd.

The Jersey, Guernsey, Brown Swiss and Ayrshire milk for one day was churned to-day with result as follows:

The butter for each breed will be com-puted for seven days on the ratio of the number of pounds of butter per 100 lbs. milk, and not, as I had been informed, nultiply the churning for one day by and the product to stand for a week's butter record.—A "Jersey Bulletin" Man COST OF FEEDING LIGHT VS. HEAVY

At a milking trial held in connection England, the cow which was awarded the first prize produced over six gallons of milk in the day, and her milk was so rich in quality that it produced over four pounds of butter. At the same show there were on exhibition other cows of the same breed and practically the same size and breed and practically the same size and weight which produced only two to three would cost as much as the six-gallon cow, because, as a rule, the better milker a cow is the more food will she consume. It is only natural that a cow yielding six gallons of milk should require a much more liberal food ration than one producing less than half that quantity. The difference in the cost of feeding the cows in question would not, however, be anything like so marked as their relative milk yields would suggest. In practice it is found that cows producing only one and one-half gallons to two gallons-that is, six to eight quarts—per day cost as much to keep as those yielding double that quantity. It is only when calculations of this kind are gone into that the different between good and bad milkers can be estimated. At least occasional tests should be made of the milk which all the cows in the herd are producing, and a similar test should be made of the food which they are consuming, and if it is found, as it is to be feared will be only too frequently the case, that the animals are not giving a sufficient return for the cost of the food which they are disposing of, they should be got rid of at the first opportunity, and their places filled by others capable of giving a better return for the food.-Farmers' Gazette.

ADVANTAGES OF THE DAIRY IN-

Dairying is the safest and most abiding of all agricultural industries. During nes when prices for all other farm prodsun to every stall if possible.

Great progress has been made during recent years in stable construction, lookthe complete elimination of the best cow and the poorest cow on sev
The best cow and the poorest cow on sevbutter through the summer and winter through the summ or dairy products have remained firm or slightly increased. The average price of butter through the summer and winter has remained more nearly the same for the past twenty years than any other food commodify. The demond for there are the commodified. The demond for these are the commodified for more than any other food laboratory of the Department of Agri-Quitture. commodity. The demand for these products is increasing every year, much faster than the supply, and the price is constantly rising. As the population of our country becomes more dense, this demand will in all probability increase more and more; the average consumption per capita is a constant of the chemical laboratory of the Department of Agriculture, where, under certain specified conditions, it has given satisfactory results in a large number of trials in distinguishing cloemargarine from both renovated and genuine butter. These conditions are essential, since under other conditions are essential, since under other conditions are essential. and more; the average consumption per capita is now greater than it was ten

As land becomes more costly, dairying will come more and more into prominence as a form of intensive farming. The dairy cow is one of the most profitable animals on the farm. She utilizes most feeding it and shipping his milk to Chicago, and when the enslinge was gone his of storing it in the form of flesh. She is milk supply was reduced 20 per cent in therefore an economical producer. She two days. Mr. H. B. Gurier of DeKalb, will produce 20 to 30 pounds of milk per day containing perhaps a pound of but ter fat, or three pounds of cheese, on the same amount of food that a beef steel will require to lay on two or three pounds of fat per day. She will continue all grades of producers from the most progressive farmer down the line of small got in the pasture during three months dairymen to the ignorant huckster. Cleancost enough to have furnished feed at the

As a specific example of the prosperity

a population of about 40,000 people. In 1870 its agriculture had reached its lowest ebb. Farmers had engaged in wheat raising until they had so reduced the naraising until they had so reduced the native fertility of their land that the average crop of wheat was only eight bushels per acre. The farms were heavily mortigaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the tent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of their averaged to the extent of 60 per cent of 60 per c

To-day it is in many respects the wealthiest county, agriculturally speaking, in
the state. It has met Holland's boast, and
has a cow to every inhabitant. Its cows
earn annually nearly \$2,000,000. It has
nearly 100 creameries, making over 7,000100 pounds of butter annually. Its dairy
farmers carry on deposit in the banks
realy \$2,000,000. The average price at
which all farm lands sold last year, according to the records of deeds, was \$61
per acre. In truth it was nearer \$80
per acre. The cash value of the entire agricultural product of the county, by the
state census of 1896, was \$4,300,000. The
tokep milk pure. It will not do to rail
out against boards of health, and call
them "cranks," as some men do. As a
tokep milk providing for a dairy commission distorted the state of Missouri legload and fine barns greet
the eye in every direction. The fertility

over the where this
for the state of Missouri legload fits poor keeping qualities. An analysis of the water in the well where this
for the water this by Governor Dockery recently. In this
farmer washed his milk cans, showed
a dairy college which is to be located at
college with sit to be located at
college with sit of the number of
applicants and when the appointment will
the made could be obtained this week, but
it is thought something interesting will
then "cranks," as some men do. As a
county is covered with splendid herds of
high-grade cattle, and fine barns greet
the eye in every direction. The fertility high-grade cattle, and fine barns greet the eye in every direction. The fertility of the land has increased to such an extent that the average yield of wheat now to make him vigilant and intelligent in its 21 bushel per acre. The land produces larger crops than it did in its virgin condition.

The fertility of these questions. The business reputation of the man who is furnishing milk in the first of the man who is furnishing milk in the solid educ, highly bred, eligible to registry; to make him vigilant and intelligent in this important work of keeping milk pure.

We are the largest manual to the solid a dairy college. And Jefferson County is but a type of every county in the United States that is devoted to dairying. There were no failures in the dairy districts during the hard times of 1893 and 1896.

C. L. WILLOUGHBY. In April Bulletin Mo. State Bd. of Ag'l.

OLEOMARGARINE AND RENOVATED BUTTER TEST

The U. S. Department of Agriculture Tests for the Detection for Oleomargarine and Renovated Butter." It was prepared by Mr. G. E. Patrick, Assistant in the Di-vision of Chemistry. The bulletin de-scribes the method of making renovated, "process," butter, and refers to the usual methods for distinguishing genuine outter from renovated, and both from leomargarine. Two household tests are given-the boil-

ing test and the Waterhouse test. The former has been in use for about ten years, and was originally used only for the detection of oleomargarine, but after the advent of renovated butter the test was found to serve almost equally well in distinguishing this product from genuine butter, although not from oleomargarine. on exhibition other cows of the same size and and practically the same size and the which produced only two to three class of milk and barely one pound of the same size, and the produced only two to three class of milk and barely one pound of the same size and boiling has begun, stir the contents of mated that not more than 10 per cent of the same size and boiling has begun, stir the contents of mated that not more than 10 per cent of the same size and boiling has begun, stir the contents of mated that not more than 10 per cent of butter. It would be a mistake to suppose the spoon thoroughly, not neglecting the the cows of the county are not now help that the feeding of one of the last-named outer edges, two or three times at intering supply the creameries. Five new sta outer edges, two or three times at intervals during the boiling—always shortly the before the boiling ceases. A gas flame, if available, can be more conveniently used. Oleomargarine and renovated butter boil noisily, sputtering (more or less) like a mixture of grease and water when boiled, and produce no foam, or but very little. Renovated butter usually produces a very small amount. Genuine butter boils usually with less noise and produces an abundance of foam. The an abundance of foam. The difference in regard to foam is very marked as a

The Waterhouse test, designed a year or so ago by Mr. C. H. Waterhouse, at that time dairy instructor at the New Hampshire College of Agriculture and Mechanic Arts, is as follows: Half fill a 100 cc. beaker with sweet milk; heat nearly to boiling and add from five to ten grams of butter or oleomargarine. Stir with a small rod, which is preferably of wood and about the size of a match, ur til the fat is melted. The beaker is then placed in cold water, and the milk stirred until the temperature falls sufficiently fo the fat to congeal. At this point the fat if oleomargarine, can easily be collectogether in one lump by means of rod, while if butter, it will granulate and can not be so collected. The distinction is very marked. The stirring is not, of ity, continuous through the cooling should be stirred as the fat is sol idifying and for a short time before. The milk should be well mixed before being turned into the beaker, as otherwise cream may be turned from the top and contain so much butter fat that the

nome locality, J. Herson County, Wisconsini

This county is 24 miles square, and has
received from the Secretary of Agriculture. Patronising the creameries in

The secretary of Agriculture.

THE IMPORTANCE OF CLEANLI-NESS IN HANDLING MILK.

gaged to the extent of w per control assessed valuation, and their average gation to determine the source of the infection. It was finally traced to a farmer "At this time the farmers of the coun-who was furnishing milk to the college. assessed valuation, and their average value was \$20 per acre.

"At this time the farmers of the county were induced to take up dairying and the improvement soon became apparent. To-day it is in many respects the wealth-lest county, agriculturally speaking, in the state. It has met Holland's boast, and has a cow to every inhabitant. Its sows! farmer washed he milk caus, showed!

THE CHEESE FACTORY.

A visit to the cheese factory Wednesday morning found Manager Manning busy receiving milk and preparing for the dai-ly output. Mr. Manning stated that the of customers was increasing daily and that the receipts of milk were mor than double the quantity brought in whe he began business a week ago. The fac-tory is an institution that is certain to prove a benefit, both to the farmers and the town; at least such is the experience of sections where cheese making The U. S. Department of Agriculture as in press and will soon issue Farmers' culletin No. 131, entitled "Household lests for the Detection for Oleomargarine control of the large producers in the State and some of the most prosperous farmers of the county are the largest patrons of the factory, some of them keeping as many as 60 cows, the milk of all going for the manufacture of cheese. These mer claim that there is more me than raising grain and their surround-ings show that they are prosperous. It is hoped that the factory at this place will secure milk sufficient to run throughout the year at its fullest capacity. Grove (Mo.) Journal

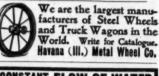
CREAMERIES ARE GROWING.

Abilene, Kan., June 1.-The past month has been the biggest in the history of the county for the creamery business. Large as have been the receipts by the farmers in the past, May was a record-break er. The thirty-six milk and cheese sta tions now in the county paid out during the month \$42,000 in cash to the farmers.

dairying will bring, we can do no better taken for oleomargarine. The bulletin tions have been built this spring and it is than to quote the words of Ex-Governor contains detailed directions for conduct- a notable fact that though the territory hoard of Wisconshin, in speaking of his home locality, Jufferson County, Wisconship of be obtained on application to stations added have all received abundant ves in Con- patronage, showing that the farmers are Agriculture, patronising the creameries more generally than ever. The prices received by the farmers were at the May pay day ab 10 per cent higher than a year ago and Last November an outbreak of typhoid averaged 19 and 20 cents per pound, or 18 fever occurred at the Iowa Agricultural cents and free skimmed milk. The quality College at Ames. Forty-two cases were farmers are looking on the creame staple part of their income.

SOMETHING INTERESTING.

The following item taken from a valued exchange is into







Reg. JERSEY CATTLE.











You can work for us and make a better salary than any other man in your county. We are engaging special representatives in every county in the United States, to handle our two great We must have active, wide-awake men and women at once and are willing to pay good money for good people. Our remedies are without exception, the best sellers on the mar-ket. You sell them on a positive guarantee. You sell them on a positive guarantee.

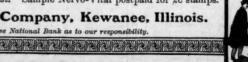
NERVO - VITAL

It goes to the root of trouble and destroys germs of disease.

Don't Delay. Send at once and secure the Special Agency for your territory.

Terms to agents free on request. Sample Nervo-Vital postpaid for 2c stamps.

Modern Remedy Company, Kewanee, Illinois. We refer to Kewanee National Bank as to our responsibility





Horticulture.

Old trees that were thought to be worn out are full to excess. It is time chance. to thin now, and when at it, it is well to do it thoroughly. The large varieties should be thinned to six inches apart:

SLUG SHOT ON PLUMS.-Last seaso I saw an article somewhere in which it was stated that a man had secured a crop of plums by dusting his trees with slug shot in the morning while the dew was on. I have tried this plan, and at this date—May 31—I have more sound plums on my trees than any season heretofore. on my trees than any season heretore. I not only dusted them, but when the dews of heaven have been withheld, I mixed it with water, one pound to three gallons of water, stirred it in well and sprayed with this solution. If this constituted whenever he had time, sprayed with this solution. If this constituted himself whenever he had time, Mo. I have bought thousands of trees from them, and have always found their successfully. Last season my Burbank plum tree in the house yard bore the finest, sound fruit. Here the ground is This tree is so full that it must be severely thinned. No spraying has been done to it. No dusting or

fall, if spared so long, I will give a list almost every year, yet there is no other of such as have done well out there, if I plum tree within 100 yards of either.

When the Marianna was first introduced

planted about a half bushel of these. Of this planting, not one in a hundred has I got them from the East at a high price, and sent out quite a number to others. I hope they have had better success. What became of mine, I can-not tell. The mice or squirrels or both get the blame, as the nuts are not there. Hereafter if any get put up here, they will be packed in sand over winter, and

THE NOVELTY has survived the winter and is growing nicely. It is so different from any of the others, that the most stupid could not fail to notice it in passing along the row. Here should be some-

subscriber sends me some roots of the Loudon raspberry, and asks me what is matter. The roots sent me look like twine strings with knots tied on them. He says some are dead. Other young sprouts came up looking healthy, but are now dying. But little fruit is showing, and that is withering up. As I have never had anything like this on my piants I am unable to tell what it is or how to cure it, unless to root all the plants out and get new plants and set them in another place. The cause of the trouble may be in the soil, or may be a fixed disease on the plants. It seems to be similar to the apple root knot that has been shown at our meetings. I would try tobacco dust on the roots. Here the drouth is giving us a hard time of it, and the writer of the foregoing says their things are drying up. This may also have some effect on the dying of his

raspberry plants.

Bluffton, Me. SAMUEL MILLER. ARE PLUMS WORTH GROWING?

(Read at the Missouri State Horticul-

tural Society Meeting at New Haven by Judge Samuel Miller.)

When a boy 70 years ago, I could eat yellow gages, blue plums and apricots from trees that grew in the houseyard, but I always found the purple Magnum Bonum wormy; it never ripening. This tree stood in the garden. I might have drawn the contrast in the situations of these trees, but then we did not know the

urculio as we do now. How well do I remember the large prune tree that stood about ten feet from the porch! At night, when there came a thunder gust, how these prunes would drop! By the flash of lightning one would be located on the ground, and I would require it, knowing well that it, I waited until morning, some well that it, I waited until morning, some will be a flag to the thing of the that it, I waited until morning, some while that it, I waited until morning, some will be only and the porch of the same when the earliest riponing varieties on highest of morning is as good authority on the ginseng market, if not the best, to be found. His company is one of the largest in the world; it has about 1,600 ships that go to the varieties on highest of morning is as good authority on the ginseng market, if not the best, to be found. His company is one of the largest in the world; it has about 1,600 ships that go to the varieties of the sections in the bother with it. Well, John had bee journals for would have to travel over the beautiful would have to tr get most of them. What wars and rumors of war and earthquakes divers places. Our nation, which was then only fairly started, now stands first mighty republic of the Western Hemi

For more than hair a century the grow-ing of the finer plums has been, to a great extent, a succession of failures. I have traveled considerable in my time, yet have never seen more than three grand crops of this fruit. One was in Lebanon, Pa., in the yard of a man who had it with flag stones. His trees were Every morning the yard was swept and the dropped plums were thrown into a slop bucket. He had, per-

haps, 20 varieties.

Another crop was at Camp Hill, Cum-These plum trees were the Richland, somewhat similar in character to the damson, but twice as large and less acid. I never saw a finer crop. That was just 20 years ago. A letter of in-quiry has been sent asking whether this

The third plum crop was in Duncannon, Perry Co., Pa. A trip of 16 miles was thinning out fruit was not to be

bruised from near the ground up to the SUGGESTIONS ON PEACH GROWING. the weather is very warm, and rot badly first limbs, so that there was hardly a patch of sound bark three inches square to be seen, and the gum was hardened on the trunks in lumps. The answer was that he had heard that if the trees were THINNING OUT PEACHES.—In this we will have a job. Some have been thinned already, but there is much more to do. I never saw a fuller crop of this gave all the trees a severe pounding. By fruit, Old trees that were thought to. this means he gave the curculio a poor

Last season there was a splendid crop

nond's slug shot in the morning when the dew was on, and one spraying with the same in solution. Time will show how this will come out.

so deep that all the new ones were sought after and planted. I had perhaps southern part of the state is considered good peach land, but the section lying not worth growing, even if we could get asked me why I did not ship them to from them, and have always found their market. He was sold that my time was output true to name, and good trees in market. He was told that my time was too valuable to waste on them. Well, if count the cost of boxing, pay the express charges and a little commission, the transaction would be even with the income, and my work would be for noth-

different soils. My advice is for you to bear well, it is necessary to have two or planted together so as not to be comlook around you, inquire of those who more varieties growing near them to pol-have been there longer than you have, and lenize the blossoms. My stock was from learn what varieties of the different headquarters and is genuine. Trees of it fruits have done best there. Towards in two different places bear abundantly

(Ask the Oklahoma Experiment Station I was offered thousands of cuttings (it there is some danger of winter killing, people at Stillwater, Okl., for advice.—

Editor.)

PARAGON CHESTNUTS.—Last fall I planted about a half bushel of these. Of the fruit proved worthy, I would consider the matter. The grafts came. In a few years the fruit showed, and was so poor that my interest in it was lost. But it is a good stock on which to work better shovel or bull tongue plow in rows 161/4 ones. Letters have come to me from dif-ferent parts of the state thanking me for advising them not to plant this plum. One man was just about planting ten acres of

sale of plums would not pay my board date roots without cramping. Remove one month. Once a firm in Minneapolis begged me to send them plums, assuring the that they would sell well. If memory serves me right, about ten one-third bush-to cow peas in rows thirty inches apart, ing along the row. Here should be solved thing for the nurseryman. Its novelty serves me right, about ten one-third business and cultivate cow peas at least twice and beauty will make it a tree for the lawn.

Stepherry ROOTS.—A serves me right, about ten one-third business and cultivate cow peas at least twice came in, and the express charges and commission paid, I was 70c in their debt. This will give a very serowth the first year and leave a transfer of the commission paid. plums, boxes, and work were worth more than that and they might suffer the loss. Is it any wonder that my question is, Are plums worth growing? But the question can be answered. If the better varieties cultivation right along for three seasons are planted, and the curculio and rot can be controlled, there will be money in them. Poultry, jarring and spraying will different culture; instead of cultivating be the remedies. Spraying with Bordeaux mixture when nearly ripe will be neces-sary. Last season my Red Junes were loaded and nearly ripe, when the rot set in, and in a few days the crop was spoiled. Just now an inferior gage tree, eight inches in diameter at the base, has a fair crop for the first time; many of the plums are still unstung. From this tree there was never gathered a half peck of

STRAWBERRY CULTURE-EARLY

Editor RURAL WORLD: One of the Grecian sages when asked what was the first thing a man should do, replied: "Get knowledge." What was the second? "Get knowledge!!" What was the third? "Get knowledge!!" If a berry grower asked me what was the first thing to do in summer, I should reply, "Kill grass." What was second, "Kill grass." What was third, fourth and fifth, "Kill grass." In the long ago I had an old darkey friend who called crab grass Gin'ul

when I hit de fus' lick."

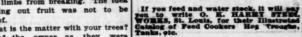
And the old man was right. "Gin'ul fall nothing earlier than Family Favorite, and would suggest eliminating Sneed, bad weather. He is a fee that all who till the soil, in this region at least, must consider the soil of annually meet and vanquish or be van-quished. And when our battles are ended and "Gin'ul Green" waves in triumph over our graves, those who come after us will be battling with him still. There-

thar fust," and in full force. One hoe then is worth a host later on. It is an easy and quick job to break the crust and give the soil a shallow stirring after each packing rain. In garden beds this Another crop was at Camp Hill, Cum-berland Co., Pa. There were perhaps 20 trees enclosed by a high wall, and within the enclosure poultry were kept. Not a within six inches of the row of places. field culture we use a small tooth horse cultivator for the middles, plowing to within six inches of the row of plants on each side. The upplowed strip is the property of the on each side. The unplowed strip is then stirred with hoes. This should be kept up as late in the fall as grass or weeds

continue to come. O. W. BLACKNALL. Vance Co., N. C.

plum orchard is still successful.

The third plum crop was in Duncannon,
Perry Co., Pa. A trip of 16 miles was
taken to visit this. The man showed me
taken to visit this taken to plant something to
bring him in some pocket money, let him
have a piece of land on which to raise
pop-corn. There is always a market for
the most improved varieties, some just
than or elivery the control of the contro



(By W. R. Wilkinson, St. Louis, Mo., Pres. State Board of Agriculture, Read at the Mo. State Horticultural Society Meeting at New Haven.)

The peach requires high, well drained, noderately fertile soil. My experience in growing this delicious fruit has been limited to Southeast Missouri, on high land on the west banks of the Mississippi River, and I consider this locality splendidly adapted, both as to soil and cli-mats. This soil when first cleared, has few inches of rich loam, underlaid with to thin now, and when at it, it is well to do it thoroughly. The large varieties should be thinned to six inches apart; as when the peaches are full, they will be just about right. It is tedious work and some can't do it; but to leave all on the trees; as they are bearing here this season, one would raise a worthless crop. In many instances, I will take 30 per cent off and still leave enough on.

Last season there was a splendid crop of didly adapted, both as to soil and climate. This soil when first cleared, has few inches of rich loam, underlaid with yellow sub-soil, and containing enough from the guarkenboss, Deep Creek, Hawkeye and some others still sound. I gave one jar-be many instances, I will take 30 per cent off and still leave enough on. right angles gives splendid air drain-age, which is of as much importance as soil drainage in the growing of this fruit; For years my interest in the plum was in Missouri where peaches can, and are

of course, there are many other places every respect. Without proceeding further, I would

warn Missouri planters from buying trees from the East, and especially from some of the wholesale aurseries of Ten-nessee. I bought largely from one of ANSWERS TO INQUIRIES.—Thanks,

Mrs. "Greener," for the compliment you pay me, but to give you a list of what you should plant in your ten-acre or chard is a little difficult for me, as we live in varieties, and perhaps more, as we fresuch different latitudes and have such different latitudes and have such different salis. My addice is for you to be a well it is necessary to have two or planted foresther so as not to be compared. finished on the west side with the latest ripening varieties. I prefer spring plant-ing for the peach. If planted in the fall

> it when the trees commanded a pretty fair price.
>
> All the money I ever received from the making them large enough to accomoment or cultivator that will not ridge land too much. This will give a very strong growth the first year and leave a heavy cover of pea vines on land tha will prevent washing off the soil during the winter months, and add both humus and fertility to the soil. Continue this to bear liberally. I would then advise different culture; instead of cultivating until July and plant to peas, I would plant land, say, 1st to the 15th of May to New Era cow peas, among earlier and medium ripening trees, and would plant Whippoorwill peas in among later ripen-Whippoorwill peas in among wing varieties, and hog all off when peas and peaches are both ripe. The New Era cow peas will mature by August, and the Whippoorwill by September. This will give an abundance of good feed for hogs, and destroy the insects that infest the orchard, and will secure a good profit the orchard, and will secure a good profit would pay more if an increased price would pay more if an increased price would get it. As supply is at present, we agreat

Freen.

Glan'ul Brown ner Gen'ul Gray, ner Glan'ul Washington Crawford Late, 10 Piquett's Late, 25 Mr. Kwnang is as good authority on John for \$1, because, as he said, he didn't when they did begin work there, they named above from Family Favorite to Salway, but would have at least 25 per cent of white Heath Cling. They are as standard as the Ben Davis apple, and ripen when weather is cool and will carry | It is a business that will bring mildemand at from \$1 to \$2 per bushel. It The time to attend to it will not be on more of the cling type, I would sug- in the United States. W. E. BOYCE. gest O. M. cling and Lemon cling as among the best. I am now growing a trial or test orchard, and have Heath Cling and other late maturing varieties is said to grow true to name from seed, like to know where to obtain it; also is said to grow true to name from seed, and I suspect many of the nurseries are growing them in this way and filling their orders without budding, any way this variety has deteriorated both as to size and quality. There are also a great many varieties grown and advertised by nurseries as improved Heath, such as Miller Cling, Wilkins, Ringold, Manneth Cling, Wilkins, Ringold, Manneth Cling, etc., which receives the second solution of a very few years longer when

in transit when shipped.

It is very important that peaches be thinned for best peaults, as most varieties over bear. Thin to four to six inches apart on the limbs. If you do not have apart on the limbs. It you do not have time to go over carefully and thin by hand, as it should be done, take a pole and shake off; this will scar and bruise the limbs somewhat, but it is better than overloaded, broken down trees, with half grown peaches, that are not salable in any market. The pole should have a hook on the end and well padded with cloth or other soft material, to prevent scaring the limbs. The thinning should be done about the time the seed begins to harden. When fruit begins to ripen, the trees should be gone over about twice, gathering only nearly ripe, high colored fruit for market. I like the climax onethird bushel basket with wooden cover best for packing, and this should be care-fully, neatly and honestly done. Pack nothing to sell to others, but such as you would have others pack and sell to you.

the best authority in China in regard to causing heavy loss to the apiarist, the ginseng market. Mr. Millard has gained his present position (which is secturn the tide in his own favor. ticles being now in demand by the best stand, and place a prepared hive on th

interview Mr. Kwnang said: and ceremonies, and its use is as irmly established as is their religion. They trates the entire working force of the colhave been taught its benefits for generations; they have been taught that it possesses supernatural power and it is even departments. Now if I can utilize the worshiped." Mr. Millard saw in the Impresse the old colony is moved to a perial Palace a ginseng root mounted new location in the apiary and left to its upon a pedestal of jade, with elaborate own resources to rear a young queen and mountings of gold all covered over with build up strong ready for the fall hara glass case, the jade pedestal with vest. To avoid the liability of the colony mountings being valued at \$25,000.

mountings being valued at \$25,000.

There was nothing in the size of the hive is not given its new location for root to excite Mr. Millard's attention,

their temples of worship and a priesthood when our ancestors were savages and wanderers on the face of the earth; what wonder, then, that the Chinese tell us that they know there is power in the ginseng root, even though all our chemists and doctors say there is no medicinal virtue in it? The past to the Chinaman is a guide to the present and future.

The ginseng supply from which the Chinese mave drawn two-thirds of what they have used in the last century, is almost gone. The time was when there was a bountiful supply for the digging but that is past. If the Chinese must have ginseng, the American people must raise it, or the supply will be almost en-

like peach trees headed about two feet high and form the head by letting five limbs grow from the main stalk, then do but little pruning afterward; these limbs of any nation on earth. It would be imout fittle pruning afterward; these limbs should be equally distributed around the trunk of the tree and will form a well balanced open-headed tree.

As to variety for family use, I would plant so as to have a succession from earliest to latest, and for such an orchard of 100 trees would plant the following varieties ripening in regular rotation from earliest to latest. Two Sneed, well the market for ginzeng to the article of commerce. You can rest too from earliest to latest: Two Sneed, well the market for ginzeng will be as good 50 years from now as it. carliest to latest, and for such an original and not subject to change as is every chard of 100 trees would plant the following varieties ripening in regular rotation from earliest to latest; Two Sneed, two Triumph, two Alexander, two St. is to-day. Unless the Americans cul-

well to any market, and are always in lions of dollars to the American people. such a foe.

General Forrest's immortal maxim to "Git thar fust and with the most men" is as sound in warring on grass as on men. The time to kill grass is before there is any grass to kill. One must "git thar fust," and in full force. One hee that fust," and in full force. One hee Texas Co., Mo.

WANTS A REMEDY FOR BORERS.

Editor RURAL WORLD: If there is

etc. None I know of are any better than
the old Crawford of thirty years ago. All
are shy bearers and ripen at a time when WORLD of June 5.—Editor.

The Apiary.

MANAGEMENT OF THE APIARY, NO

Editor RURAL WORLD: My last ar

ticle under this heading in your paper was mainly devoted to the enemies of bees, etc. I now propose to deal with the subject of "swarming" in the apiary.
The beginner in bee culture is delighted
with the hurrying, singing sound of the
"swarms" in his little apiary, because grow grave, if it indicates no bad humor One of the greatest problems to be deals with in a large aplary, or in any aplary as large as the proprietor wishes to handle, is the propensity of bees to swarm, especially to swarm at the wrons time. in the judgment of the apjarist Editor RURAL WORLD: In an inter-view with Mr. Thos. Miliard a few weeks ago, who was just from China, in a gleeful rush in their surplus departhaving gone as war correspondent for the ments, storing fancy comb honey, and London "Mail," one of the largest, if not when their surplus departments were London "Mail," one of the largest, if not the largest, daily paper in the world, Mr. Millard extended to me the privilege of using his name as authority for state- swarms, leaving their half finished work ments which I shall make as coming from to the care of a few young bees, thus ond to none as a reporter) by a close remedies to counteract this common freal application to the details of his work, of trare perceptive abilities, and an abso-titled by our best informed aparists, but the following plan has given me the best all things pertaining to his work. It is this that has made him one of the best these circumstances, I remove the hive this that has made him one of the oset through the same treductions of the day, and he is fast be-coming a magazine writer of note, his ar-stand a few feet to one side of the old THE PAST.—Mr. Miliard, while on a load, and place a prepared live on the most prood combs if I have them at my command, other-boat, met Mr. Kwnang, President of the China Merchants' Co. of Shanghal. In the the frames. A queen excluder is adjusted to the blood on the blood over the broad control of the blood of the blood over the broad control of the blood of the blood over the broad control of the blood of the blood over the broad control of the blood of the blood over the broad control of the blood of the blood over the broad control of the blood of the blo "The on the hive over the brood frames, and Chinese have used ginseng for several the surplus department of the old hive is thousand years; they know its value as changed to the new one. The swarm is a medicine; they use it in religious rites now hived in the prepared hive on the and ceremonies, and its use is as firmly

Ene Chinese used ginseng when our ancestors were barbarians. They had a complex form of government when our ancestors were governed by the law "every man unto himself." They had their temples of worship and a priesthood when our ancestors were bees to encourage them and keep them in normal condition till all the young bees have hatched from their combs, which requires 21 days to accomplish from the time the swarm left the hive. Now the

> You now have your honey crop saved and the one colony you commenced with and no more. Shelby Co., Ky. G. W. DEMAREE.

BEES AND HONEY ON THE FARM.

"A swarm of bees in May Is worth a ton of hay,"

is a "Pennsylvania Dutch" proverb. It has a practical import, you see. The Pennsylvania Dutch are a practical sort The of people. They believe in work, proper ty, plenty of good things to eat, and in spooks and "old women's fables." But sensible as it seems as a rhyme it is a little out of joint as a fact—and facts we · But are after in bee keeping, writes J. D. Gehring in the "Ohio Farmer..'

are the facts concerning the actua money value of a swarm of bees in May? This is a question of very great import

ance. A briefly told illustration will perhaps serve as an answer.

In the year 1884 a farmer's boy bought

every pound of it at 30 cents. You can worth of honey inside of 35 days, and had easily figure out how much that swarm besides a colony of bees worth \$10. All was worth that season. Thenty-eight for the sum of \$1. Destroyed by the fact of the season. The skipping disarrence of \$1. This is how he position. OF THE HIVE did it:

ing east-because thus the eight frames now composing the brood chamber were thus shutting off the space left by the frames that had been removed. To prevent the bees from getting into this shutoff space over the top of the division board, the top of it was covered with a

The Three Million Acre

FARWELL RANCH in the Panhandle of Texas

FOR SALE IN TRACTS TO SUIT.

The land is largely chocolate or black sandy loam, deep, rich, capable of producing forage crops in great abundance. It is thickly coated with buffalo, mesquite, grama, sedge and other choice grasses Rainfall ample for production of forage crops, grasses and fruits. Admirably adapted for Grapes, Pears, Peaches, Apples, Plums, Melons, etc. An inexhaustible supply and excellent quality of water is procurable at an average depth of 125 feet. The altitude varies from 2300 feet at the south to about 4700 at the north. The temperature is equable and the climate unexcelled for healthfulness. This is the best cattle and stock breeding country in the world. Panhandle cattle are of very superior quality, a carload of steers bred on this Ranch having been reserve number for the grand champion carload of fat steers at the International Live Stock Exposition in Chicago, December, 1500. The stock subsists on the pastures the entire year, finding very nutritious food in the cured native grasses. This is an unprecedented opportunity for those desiring to engage in the stock farming business or for investors willing to hold for appreciating values. The small ranchmen in the Panhandle have made more in recent years for the capital and energy invested than the farmers in any section of our country.

The Ft. Worth & Denver City By, traverse the north end of the land, the Pecce Valler and Northeastern Hx. (narth of the Sante Faverse).

The Ft. Worth & Denver City By, traverses the north end of this land, the Pecos Valley and Northeastera Hy. (part of the Santa Fe system) the south end, and the Chicago, Rock Island and Pacific Hy. is constructing a line from Liberal, Kas. to El Paso, Texas, which will soon traverse the middle of it.

Will be sold in solid blocks to suit purchaser for cash or

very liberal time payment.

To inspect lands call on A. G. Boyce at Channing, a station on the Ft. Worth & Denver City Ry, in Hartley Co., Texas. and for full particulars write him or Wm. Boyce, agent, Amarillo, Texas; or Geo. Findlay, agent, 148 Market Street, Chicago, Ill.

SEEDS STOCK PEAS CHAS. E. PRUNTY,
MAIN AND MARKET SAINT LOUIS.
STRIPPED BLUE-GRASS SEED WANTED

Slug Shot Kills Bugs SEEDSMEN.

IN THE GARDEN.
For pumphlet address B. HAMMOND, Fishkill-on-Hudson, New York.

and the bees for business. But John had also learned that it is not best to give a newly hived swarm a super at once. He therefore covered the top of the frames with a nicely fitting piece of fine burlap—carefully smoking the bees that were in the way and driving them down. He then put the cover on the hive and waited two days before he gave the col-ony a super. Why? Because when the super is put on im-

mediately, or soon after hiving a swarm, and there is no drawn-out comb in the brood chamber for the queen to lay in, she is almost sure to go up into the super looking for a place to lay. The bees, of course, rush after her until the super is completely filled with them. They seem to know what the queen is looking for, and, being intensely interested in her and all her doings and goings, they are not slow to serve her in this case by drawing out some of the comb foundation with which the sections in the supe are filled, and thus providing finished comb cells for her to lay in. Of course, after once having begun laying in the uper the queen is likely to stay there as ong as she finds room to lay, unless th see keeper interferes with her well-in-tentioned operations. There were two principal reasons, John knew, why the bove described piece of mischief should be "nipped in the bud." First, it was ecessary to success that the queen should begin laying in the brood frames, not only ecause that is the proper place for brook rearing, but also because any egg laying done by her in the super above is a total waste—to say nothing of the loss of valu-able time. And, second, it was also very essential to supersond. essential to success with a new swarm that the brood frames should be filled with eggs, larva and brood as soon as possible, because otherwise the bees would store their honey there instead of the super. John wanted this swarm in particular, to do as much legitimate business for themselves in the brood chamber and also as much as possible for

is benefit in the supers. Well, the fifth day after putting on the irst super, John made an examination to see how the bees were doing their work. To his surprise and delight he found that they were beginning to seal over the sec-tions in the middle of the super. He knew by that sign that it was time to add anther super. This he did at once. But, here again, John's bee knowledge

prevented his making the blunder of placing the fresh super on top of the full on He knew of several good reasons why that should not be done. One was that time the honey gatherers were doing good we can detect them very early from the

POSITION OF THE HIVE.

thus induce them to go to work in the front of them is to be directly in the line sections sooner than they would if allowed to occupy the whole space of the but those that are returning to the hive, brood chamber. To arrange the hive for and this greatly increases the probability this purpose two frames were removed.

These were taken from the side facing tivator." If hives are already so placed toward the north—the hive entrance facas not to admit of thus working behind them, move them a few feet to the front. If they are moved a little distance on the south side. A division board made forward on the same line as they face beto fit the inside of the hive was put in fore moving the bees will have no trouble
close up against the outermost frame, in finding them, but to turn the front in in finding them, but to turn the front in another direction or to move a hive to one side seems to bewilder them, so that they know not where to go. We like the hives to face south, or nearly so them. one side seems to bewilder them, so that they know not where to go. We like the hives to face south, or nearly so, though some bee keepers prefer the east, and a few have a part each way and a part to the southeast. We do not know that any experiments have been made to prove one minurseries as improved Heath, such as Miller Cling, Wilkins, Ringold, Mammoth Cling, etc., but none are equal to the old Heath Cling grown in Perry County, hence if any thirty years ago, and known there as the English peach. There are also many the English peach. There are also many improved Crawfords, such as P. C. BROWN & SON.

P. C. BROWN & SON. like to have them face toward an orchard or other point where they expect them to find the blossoms that will furnish honey. others with "starters" of it. Thus pre- But whatever position may be chosen, do Muhers will find "Mrs. Winslow's Soothing pared, the hive was ready for the swarm, not change it after the bees begin to fly.

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BURPEE'S SEEDS GROW. Illustrated cata AGENTS WANTED To sell Ortiz

T. R. PEYTON, Manager, Mexico, Mo.

A queen that produces drones only is

larly as a properly fertilized queen. did it:

He put the swarm—which was a very large one—into a live with room for ten so that when one desires to open them or frames. But he gave them only eight to do any work about them he can stand frames in order to "crowd" them and at the back side of them. To stand in crowth of the grup and sleep the manner. growth of the grub, and also the manner in which the cells are capped over. The face. In worker brood the capping is level with a more smooth level surface

These queens, of course, occupy the or-dinary worker cells, which are too small to rear drones in, hence they extend them to some extent. These drones are not as

Live Stock.

DATE CLAIMS FOR LIVE STOCK

Nov. 12-13.—Purdy Bros., Harris Mo., and D. L. Dowdy & Co., Arrington, Kas., at Kansas City, Mo. Shorthorns.

Dec. 10, 11, 12 and 13.—Kirk B. Armour and Jas. A. Funkhouser, at Kansas City. Hereford cattle. Dec. 18.—C. D. Bellows, Maryville, Mo., at South Omaha. Shorthorns. January 28 to 31, 1902—Sotham's annual terion Sale, at Kansas City. 14, 15 and 16.—Cornish & Patten, born, Mo., and others, at Kansas y, Mo. Hereford cattle.

March 6-7.—I. M. Forbes & Son, Henry, Ill.; J. F. Prather, Williamsville, Ill.; S. E. Prather & Son Springfield, Ill.; C. B. Dustin & Son, Summer Hill., Ill.; T. J. Wornall, Mosby, Mo., and others, at Chicago, Ill. Shorthorns.

March II.—W. P. Nichols, West Liberty, Iowa. Shorthorns.

June 19.—C. E. McLane, Danville, Ind., at Indianapolis. Double Standard Polled Durhams.

but want a first-class bull and one or two helfers. A READER. Franklin Co., Mo.

We would like very much to have live stock auctioneers-Sparks. Jones. Mitchell, Harriman and Graham-whose cards appear on this page, tell "A Reader" how to select a good breeding bull and helfer. These experts can, if they will consent to do so, give the points which a purchaser of breeding cattle should consider, the light of self interest breeders should and in a way that will be of much service periodically test their herds. It is not Gentlemen, let us hear from you on the subject.

SHIPS THAT CARRY LIVE STOCK.

The number of vessels carrying live stock that were inspected in 1900 by the Bureau of Animal Industry Inspectors was 862. The enforcement of the regu-lations formulated by the bureau in accordance with the act authorizing the Secretary of Agriculture to inspect vessels carrying export cattle from the Unit-ed States has been most beneficial. The poorer classes of ships have been replaced test. 3. That the loss from tuberculosis by specially constructed ships for the cattraffic, with ample space and proper ener, with perfect fittings built in them, sary tests which make it possible to reand all the comforts and safety which ingenuity could provide," thereby diminishing the losses of animals while at sea compulsory, but simply claiming that, in from twenty-one in every 1,000 that were the light of self interest, breeders of pure embarked in 1889, before inspection was authorized, to three in 1,000 in 1883, two the proposition is reasonable and equityears after inspection was begun. Furthermore, in consequence of the greatly reduced risks of transportation, there has been a corresponding reduction in the insurance rates and a total saving in insur-

ANIMAL FORM SERIES NO. 8.

The marks which characterize the head and forepart of a good beef animal having been before described, we will con-tinue to give Dr. Miles' opinion as to the hindquarters of a good beef animal.

"The loins are long and wide, diminishof the transverse processes, correspond-ing with a similar characteristic of the loins and sacrum: while the cord, which,

Then, too, what is known as the touch or handling quality furnishes valuable in-dications of many of the most important characteristics of an animal. The activity of the capillary circulation is of great ortance in the processes of nutrition. As the skin is abundantly supplied with capillary blood-vessels, if it is examined by the "touch," one can ascertain whether this part of the circulatory apparatus ng its function. If the skin is found to be in a healthful condition, which is at the greatest possible distance from the large vessels of circulatory system the large vessels of circulatory system to the inner parts of the organization will be properly nourished. To determine the quality of an animal by "touch" requires experience and skill; but this same auquality of an animal by "touch" requires experience and skill; but this same au-

good feeder, and the fat, as a rule, will good feeder, and the fat, as a rule, who well distributed, giving a good quality cattle, I would not only keep the herd of fine-grained, marbled flesh. If the coat is short and fine, the animal may feed is short and fine, the animal may feed the fact. Do you mean to say that I would not only keep the herd cattle, I would not only keep the herd first from tuberculosis, but would advertise the fact. Do you mean to say that I well; but there will be a tendency to the formation of internal fat, instead of that uniform distribution throughout the system that is desirable. In animals of good quality the skin is soft and elastic, of any considerable number of the trackerous shore. Suppose the breeders quit sailing so close to the treacherous shore. Suppose the breeders during the past two decades, any considerable number of the past two decades, any considerable number of the past two decades, and the past two decades, and the past two decades any considerable number of the past two decades, and the past two decades, and the past two decades and the past two decades, and the past two decades and the past two deca

SHOULD BREEDERS APPLY THE TUBERCULIN TEST

At the present time there is no mista ing the attitude of breeders toward the tuberculin test. As noticed in a previous paper in the RURAL WORLD, that at Oct. 21, 1901.—E. E. Axline, Oak Grove, Mo. Poland-Chinas.
Oct. 2.—E. B. Donahey, Newton, Iowa.
Shortborns. Shorthorns.

Oct. 2.—F. M. & O. B. Cain and Jas. Novinger & Sons, Novinger, Mo., at Kirksville, Mo. Shorthorns.

Oct. 2.—A. Alexander and R. G. Robb & Son, Morning Sun, Iowa. Shorthorns.

Nov. 5-4.—B. O. Cowan, New Point, Mo., at Kanass City. Shorthorns.

Mo., at Kanass City. Shorthorns.

Nov. 12-13.—Purdy Rec. Y. from time to time and has then adver tised the fact with a view to increase sales and enhance the value of his an-imals. This fact is significant, as it shows a want of absolute faith in the wisdom of such a course. In all these ways, therefore, breeders have answered the question at the head of this paper, and they have answered it negatively, and in many instances the negative has been very emphatic. And among those who penly avow an unbelief as to the wisdom of applying the tuberculin test, strange to say, there is now and then a veterinarian, a man who is usually re-luctant to write his real name under his production

Notwithstanding this unmistakable ex-pression of view, I am glad that the opportunity exists to put myself on record June 12.—C. E. McLane, Danville, Ind. at Indianapolis. Double Standard Polled Durhams.

HOW TO SELECT BREEDING CAT.

TLE.

TLE. Editor RURAL WORLD: Will you or some of your experienced readers give me the points to note in the selection of a young Shorthorn bull and a heifer? This information will be greatly appreciated. I have some good grade cattle but want a greatly appreciated. these propositions, as expressed above and so satisfied am I as to what the verdict of the future shall be that I want

periodically test their herds. It is not meant that they shall go on testing them forever with the same frequency, but they should test them with sufficient frequency free from the great bovine destroyer.

That they ought to do so in the light of self interest is evident from the fact, first: 1. That tuberculosis is a communication of the self interest is evident from the fact, first: 1. That tuberculosis is a communication of the self interest is evident from the fact, first in the self interest is evident from the fact, first in the self interest is evident from the fact, first in the self interest is evident from the fact, first in the self interest is evident from the self interest is evident from the great bovine destroyer. first: 1. That tuberculosis is a communicable disease and once in a herd, if not detected and removed by some curative means, like the brook, it will go on forever. 2. That there is no other way of test. 3. That the loss from tuberculosis once lodged in a herd, from which no measures are taken for removing it, will ation and "having every conveni-with perfect fittings built in them, sary tests which make it possible to reable and surely it is, does not the hostile attitude of the breeders to the tuberculin test and to those who advocate it seem strange? It reminds one of the little boy who struck the bottle that contained the medicine that would have made him well, and of the far less excusable action of the man who struck the physician who lanced the festering sore which had been racking him with pain.

The second proposition claims that in justice to the public the breeders of pure breds should test their herds. If any breeder is quite sure that tuberculosis is present more or less in his herd, and if ing the triangular space between the hips and the last ribs, and carrying the larging the larging to the tuberculin test properly expossible amount of choice fiesh. The hips should be broad, and the rumps long imals from that herd to another? Or, to hips and the points of the rump. The tall should be set on in a line with the back, its base being broad, from a development of the transverse processes. test is not reliable because he wants to believe thus, and if he goes on selling tuberculous cattle from his herd to his of the vertebrae only, should be fine, as neighbors, is he innocent? Are we not of the vertebrae only, should be fine, as an indication of small bones in the general skeleton.

The quarters from the hips and rump to the thighs should represent a vertical plane, while the twist should be full and even, without any marked protuberance of the buttocks. With this conformation will be found an abundance of fine-grained, valuable meat; while the inferior pieces will be reduced to a minimum."

neighbors, is he innocent? Are we not held responsible, not only for what we ought to know, but also for what we ought to show. Would such an one like another the surface of the same to sell tuberculous cattle to him? Weigh this whole course of procedure in the bakances of the Golden Rule, and where the found an abundance of fine-grained, valuable meat; while the inferior pieces will be reduced to a minimum."

In this respect, however, the Hereford's appearance is deceiving, for on its short to sell tuberculous cattle to him? Weigh this whole course of procedure in the bakances of the Golden Rule, and where the found an abundance of fine-grained, ing animals from a herd which he knows to be more or less infected with tuberculosis?

The quarters from the hips and rump to know, but also for what we ought to soll the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same appearance is deceiving, for on its short for its Shorthorn brother of the same app

by using the tuberculin test, and then to advertise the fact with a view to enhance their sales. Why this has not been done shows, as previously intimated, a lack of entire confidence on the part of many breeders in the reliability of the test. But, observe, this fact by no means endangers its reliability. To the writer it is clear that tuberculous cattle should not be sold for breeding purposes, and it is equally clear that they should not be sold for breeding purposes, and it is equally clear that they should not be sold for breeding purposes, and it is equally clear that they should not be sold for breeding purposes, and it is equally clear that they should not be sold for breeding purposes. experience and skill; but this same authority gives the following hints to aid one in judging by the touch:

"A fine, long and mossy coat, that is soft under the hand, is an indication of a good feeder, and the fat, as a rule, will recommend to the fat, as a rule, will recommend the fat, as a rule, will recommend to the fat, as a rule, will recommend the fat, as a rule, will recommend the fat, as a rule, will recommend to the recommendation of the recommendation of the rule of the Inject with Hood Farm ment would be greatly effective in popularizing the tuberculin test and thus fail to breed, do not clean, are lessening tuberculois, and those breeders

SHELLED CORN COMPARED WITH CORN CHOP FOR YOUNG CALVES.

In the fall of 1899, the Kansas Experin the fall of 1899, the hand of young ont Station purchased 20 head of young calves, composed mostly of Shorthorn and Hereford grades. On November 28, these calves were divided into two lots as nearly equal as possible, the average weight ng 127 pounds. Both lots were fed and treated alike, with the exception that one received its grain as shelled corn and the other as corn chop. All the calves were that it would be less painful or dangerous fed mixed hay (red clover, orchard grass, and English bluegrass) for the first nine weeks, prairie hay for the next four weeks and a mixture of prairie hay and alfalfa for the last six weeks. Each lot was given all the milk, grain and hay the calves would eat without scouring. Sait was accessible at all times. For nine days pre-vious to the division into lots the grain for all the calves consisted of a mixture of shelled corn and corn chop. It was no-ticed that the calves would begin to eat the shelled corn when three to four weeks old, and in a few cases when two or three weeks old. At the commencement of the experiment each lot was consuming ten pounds of grain daily. As the experiment advanced it was found that the corn-chop calves could not eat as much grain as the shelled-corn calves without causing considerable trouble from scours. This accounts for the difference of 325 pounds in

nder experiment these ten calves consumed 18,561 pounds of skim-milk, 2,611 pounds of shelled corn, and 7,088 pound of hay. The total gain during the experi ment was 2,322 pounds, or 1.74 pounds daily per head. Valuing skim-milk at 15 cents per 100 pounds, grain at \$0.50 per 100 pounds and hay at \$4 per ton, the feed cost of raising these calves amounts to \$55.06, or \$5.50 per head. The cost for each 100 pounds of gain is as follows: Skim-milk \$1.20, grain \$0.56, roughage \$0.61, total \$2.37. CORN-CHOP LOT.-The ten calver sumed 18,666 pounds of skim-milk, 2,286 pounds of corn chop, 7,088 pounds of hay. The gain of this lot was 2,123 pounds, or 1.59 pounds daily per head. At prices given above the feed cost amounts to \$58.60, or \$5.36 per head. The cost of each 100 dict of the future shail be that I want to go on record thereto, notwithstanding that the current of public sentiment at the present time should carry those propositions a thousand miles seaward. And now, let the propositions be further analyzed.

The first proposition claims that, in the light of self interest preeders should grain cost per 169 pounds of gain would grain g grain cost per 100 pounds of gain would be increased to \$0.59 and the total to \$2.57. Comparing the two lots, we find those on shelled corn made the best gains by 19 pounds and at a cost of 20 cents less per 100 pounds of gain. Since calves relish certainly no object in going to the ex-pense of grinding the corn. This experiment shows that it is possible to raise good, thrifty calves that will gain 1.75 pounds daily per head on feeds produced entirely from the farm and in a form that requires no preparation of the feed, out side of harvesting, except the shelling of the corn D. H. OTIS. ansas Experiment Station, Manhattan

Kansas. HEREFORD WEIGHTS.

There has been an impression on the part of some people in the past that Here-fords lacked size, and that their usefulness would be increased when this reuirement was met. It has always been contended by the friends of the Here-ford that while size was a most desirable feature, quality should not be sacrificed for its sake. In the early part of 1800 the Hereford breed was noted for the size of the oxen it produced. These were what the demand of that period required and the Hereford supplied that demand as successfully as they do the changed re-

ments of to-day. of the big ox could not be used profitably as a beast of burden or draught, and the equisite quality for a purely beef animal was sought. The Hereford female had and it was through her that the breeders worked for the production of a steer that would have the early maturing qualities desired. The value of a beef animal must, however, depend on the butchers' block. and the representative Hereford of today can lay positive claim to the successful combination of size and quality that was reached only through years of

careful selection and breeding. ing this was the comparisons made by the interested spectators at the joint Hereford-Shorthorn show at Kansas City last fall, where Herefords and Shorthorns of suffice. Give all the roughage required. rings. The general opinion of all but the The third proposition claims that it is the privilege of breeders to free their Herefords had the quality and uniformity, but that they suffered in the comparison by using the tuberculin test, and then to of size. Some trouble was taken to see

ŀ	the base date of	Augus	t 10, 190	v:	
l	Average weights Differen				
1	Males.	Herefords.	Shorthorns	Herefords.	
	Over 3 years old Two-year-olds	1945	2285 1885	58	
	Senior calves	929	926	3	
	Junior calves Females.	705	648	57	
١	Over 3 years old.	1735	1602	133	
ı,	Over 3 years old. Two-year-olds Senior yearlings. Junior yearlings.	1537	1401	136	
l	Senior yearlings.	1240	1234	6	
	Junior yearlings.	1123	1022	106	
	Senior calves	780	787	***	
١	Junior calves	583	542	41	
١	Senior calves Junior calves Without doubt th	e sca	le of the	e Here	for

tem that is desirable. In animals of good quality the skin is soft and elastic, of moderate thickness—the latter point, however, varying somewhat with the breed—yielding readily to the fingers when the animal is in moderate condition, but increasing in firmness and substance as the animal "ripens."

close to the treacherous shore. Suppose any considerable number of them launch out boldy into the deep and advertise that their animals are guaranteed free from tuberculosis at the time of sale. What will be the result? Will not their nearly maturing quality acquired by so many years of careful breading, but which was absent in the warres have the preference in the public markets? Will not such a course of action in time compel all breeders of pure doubtedly has this quality in addition to bred stock to do likewise? Such an argu-

made to Breed, do not clean, are irregular; also after abortion. Of greatest value to breeders who are first in the adoption of such a and stock owners. Dollar size by mall, \$1.15; large size four times more, to any rail-road express point in U.S.\$2.75 C.I. Hood & Co., Lowell, Mass years.

CONCERNING CALF CASTRATION.

In my judgment no calf should be casnths of age, and where they are not more than usually vigorous and growthy I would allow them to run the first winter and castrate them about the time they start on grass in the spring, writes a Kansas grower to the "Breeder's Gazette." However, this extreme age of castration would not be practiced. I do to the calf, for the reverse is true, but on the theory that the calf acquires a more vigorous and robust constitution, grows a shorter leg, a shorter neck, a stronger iaw, is capable of crushing corn better, and is in every way nearer the form of an ideal feeding steer. I would not cut the end from the scrotum, but split the end of each pocket separately; also, split the striffen and take each testis out clean with cord. While this operation is in no-wise dangerous, it should be done with care and cleanliness.

CATTLE RANGES CONTRACTING.

Washington, May 31 .- M. B. Barnicutt of Kansas, who is in Washington, believes that the time is not far distant when the United States will have to look abroad for her meat supply. He does not think this condition will come in the next decade, but declares it will not be much longer than that before South American cattlemen will be able to underbid dealers in this country in their own markets. He

"The reason for this state of affairs is very apparent. Land in the United States is growing too valuable to be used for grazing purposes. It is only a few years ago that the western country was one vast pasture land. The only cost of raising cattle was for men to watch them Now the demands of agriculture are eating up this wild pasturage, and the terri-tory for cattle raising on a large scale is growing smaller and smaller. Where cattlemen once had pasturage free, they are now renting the privilege from the In-dians and in other ways the cost of rais-ing cattle is increasing. The country will continue to grow more thickly populated, and we will come to have no cattle in comes the price of beef must be high enough to make it profitable to graze cattle on farming lands, else no cattle will

A GOOD REASON.

Great is the demand for all kinds of

Two men were discussing prospects for live stock receipts and prices. One man thought the increased receipts of cattle for the year so far would be followed by still large gains with heavy supplies of hogs and lower prices for both. The other man said there would be liberal marketing of stock but higher instead of lower prices. When asked if this did not seem unreasonable and unusual his reply was:
"It may be unusual, but it is not at all

arger than the large supplies."

Then, again, our meats through competition and expansion of trade have been pushed into a great deal of new territory at home and abroad, especially at home. more, When were there more mouths to it arrived we had two calves feed than at present? When was there duced with cholera that I did more money with which to buy food for it possible that anything co everybody? It is simply a race between supply and demand and demand is a long eck ahead.-Live Stock World.

COWPEAS AS CATTLE FOOD.

Subscriber to the "Breeder's Gazette" writes: "I am feeding young breeding cattle for

bone and muscle. My best feed crop is cowpeas. How should this be supple-mented to get the best results?" Our correspondent does not say whether he means the seeds of the cowpea plant or

the vines of the same made into hay. Both are rich in protein, says W. A. Henry. If he is feeding the peas, they should be mixed with cornmeal and bran to lighten them up, as alone they are a heavy feed. A grain ration consisting of one-third cowpeas, one-third bran and one-third cornmeal should put bone and muscle on young cattle about as fast as any combination at the command of the feeder. If our correspondent means hay made from the cowpea vine, then he has a roughage rich in protein. This will take the place of clover hay. Let the ration then for the animals consist of oats, bran and corn for concentrates, and cowpea

The interest of yesterday's (May 22) at \$3.50. sale of Hereford cattle at Dexter Park er, New London, Ohio. The bidding was stopped for a time at \$3,100, and when with three quick bids the price was raised to \$4,000, the crowd cheered, for the Hereford record for cows was broken by \$200 \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the area with the conditions of the best feeders \$3,700 being the conditions of the best feeders \$3,700 being the conditions of the conditions of the best feeders \$3,700 being the conditions of the condi amphitheater centered in the sale of Dolly at the Kansas City sale. But Dolly 2d is a good cow and has beaten Carnation in the show ring wherever they met, so the bidding did not stop at \$4,000, but went up steadily to \$5,000, when she was knocked down to N. T. Bowen of Delphi, Ind. Col. Edmonson, the auctioneer, casually remarked that were he a certain man he would corner the Dolly family. The hint was taken by Mr. Bowen and he bought all the Dolly offerings at good at \$5.57%.



the future ownership of this cow. C. A. Jamison of Peoria, championed the Illinois cause and staid in the bidding up to \$4,700. Frank Nave was bound she should live in Indians, and raised it to \$4,500. Mr. Bowen, a prominent banker of Delphi, Ind., is just launching in the Hereford business and came here with his areas from the property of the state of eyes fixed on Dolly 2d, and her ownership vould probably have been the same

the price double the amount.

The sale was a great success and the Hereford men are feeling considerably 'swelled up." Altogether, ninety-eight head were disposed of at auction and some at private sale. The average price paid for cows was \$409.93, and for bulls \$207.74, the general average being \$346.63.-Live Stock World.

STOCK NOTES

CHEROKEE N., I. T.-It has been very dry here this spring. Corn is generally in good condition. Oats will be a failure nless rain comes soon, which

bout a half crop.
I am breeding Berkshire hogs and Shortorn cattle. My foundation stock came rom N. H. Gentry's herd at Sedalia. 1 ught a fine bull calf of Mr. Gentry thi spring. He is a beauty and is giving good satisfaction. I think Mr. Gentry is breed ing the right sort. L. H.

THE LARGEST BULL IN THE WORLD is being fattened near Merwin, Missouri, for exhibition at the World's Fair in St. Louis. The animal is six feet and one inch high at the shoulders, and is fifteen feet and one inch from tip of nose to base of tail. The animal weighs 3,000 unds, and experienced stockmen say it will not be difficult to fatten it until it brings down the scales to 4,500 pounds which will be a record breaker. The bul s a pure bred Shorthorn

THE GALLOWAY HERD BOOK, Volme XI., contains the entries of 2,388 an-nals, running the numbers from 16,504 to 18,892 inclusive. Secretary Frank B. Hearne, to whom we are indebted for a copy, says, "It is the largest volume ever gotten out in the same length of time, and the transfer record shows nearly double the number made in any previous year. The past year has been one which should give to all Galloway breed-ers a stronger faith in their favorite breed, and also encourage each one to renewed activity in putting the to the front."

Entries are now being received for Vol-ume XII. Address the secretary at Independence. Mo.

CALF CHOLERA AGAIN .- During the past month we have had many comple relative to the loss of calves, and in-quiries as to the best method to preven the ravages of calf cholera. The experience of Victor E. Mason, the well-know stockman residing at Verona, Wis., is worthy of attention. Mr. Mason writes: "In recent years we have been losing a nable, as the demand is simply large percentage of our crop of calve from calf cholera, and up to this season we have been unable to find any cure for it. When at the Union Stock Yards in Chicago about the middle of April with a shipment of cattle, I met R. B Wherever up-to-date American dressed or cured meats have been introduced they have made such a favorable impression um as a sure cure for this disastrous disthat consumers have called for more and ease. I bought five gallons and the day ailing youngsters as directed, givin them a

duced with cholera that I did not think it possible that anything could revive them; but I lost no time in treating the them a one per cent solution of Zen um, in eight-ounce doses every hours, and to my surprise within a few hours they showed a marked improve-ment, and within a few days had fully recovered. We are using Zenoleum on all our cattle that show any sign o cholera, and have not lost a single anir since we have had it in use ore shoulders and gall cuts on our work teams." Zenoleum is made by the Zenner Dis

infectant

EVANS-SNIDER-BUEL CO. made the following representative sales in Kansas City during the past week: W. R. Horan, Kansas, 25 corn-fed steers,

1,136 lbs., at \$5.25; also three cows that brought \$4.50 and averaged in weight 1.08

Tayler Polk, Indian Territory, 24 grass exas bulls, 1,140 lbs., at \$3.00. Hadley & Harris, Texas, 74 grass Texa steers, 965 lbs., at \$4.15; 22 steers, 921 lbs at \$4,00; 23 steers, 1.089 lbs., at \$4.50; 53

Wilson Bros., Texas, 153 meal fed Texas T. R. Todd, Indian Territory, 34 cornfed steers, 1.039 lbs., at \$4.95.

Harris, Mo.

Harris, Mo.

Harris, Mo.

Harris, Mo.

FOR SALE AT ONCE—A good foundation good yeung cattle and hogs for wards, here of shorthors, which is visitors welcome; farm and control of the control o

A. N. Snapp, Texas, 13 grass Texas stags, 875 lbs., at \$3.40, and 10 grass cows M. G. Wilcox, Missouri, a bunch of stock

C. W. Bogue, Kansas, a bunch of corn Heiman is one of the best feeders that

C. Langvort, Kansas, a load of mixed packers at \$5.80. J. H. Frazier, Oklahoma, a load of light hogs at \$5.621/4. J. A. Jackson, Missouri, a \$5.75 load of

load of light Indian hogs that sold at \$5.60. L. A. Keys, Indian Territory, light hos

at \$5.60.

V. Barrett, Oklahoma, a load of lights The Commercial National Bank, India, Competition was strong on Dolly 2d, Territory, a load of light mixed hogs a J. C. Minter, Missouri, a load of mixed

hogs at \$5.65.

Hogan Mercantile Co., Indian Territory load of light Indian hogs at \$5.65. Geo. B. Keeler, Indian Territory, three loads of Indian hogs at \$5.65. A. A. Truscutt, Kansas, light mixed hogs at \$5.77½. B. R. Johnson, Missouri, a hogs that sold for \$5.72½.

Ratliff & Stewart, Miss light hogs at \$5.70.
P. H. Boughma

mixed hogs at \$5.75. Peterman & Reeves, Indian Territory, a load of 165 lbs. hogs at \$5.65.

A. McKinstry, Kansas, a load of 195-lb. hogs at \$5.75.

A. Criger, Kansas, a load of light hogs at \$5.72%.

Ross & McConnell, Kansas, a load of light hogs at \$5.72%. Shorthorns and Poland-Chinas!

sows of Mo. Black Chief; 30 fall gilts by son of Mo. Black Chief, litter mate to Chief Belipse xilne's great boar; two Aug. and Sept. boars by I Am Perfection, Mr. Wares' great prize winner are some fancy show animals in this offering. Three Sept. bulls by Section ire, dam Bates bred Call on or address



Gentry Bros., Cedar Vale Stock Farm, SEDALIA, MO.

of Hazelhurzt 125494, ass'sted by Waterico Duke of 3305, heads our herd of pure Baises and Bates tupped, and Societo topped cows of the most fashionable ock for sale at all times at reasonable prices. Partice Farm two miles cut. Telephone No. 20.

BARGAINS IN SHORTHORNS!

4 yr. bulls, 3 by Victorious 121469, 1 by son of his, 3 reds, 1 dark roan; 5 yr. heifers by son of Victorious and son of Airdrie Duke of Hazelhurst 117846; 14 cows are Renicks, Rose of Sharons, Peris, Josephine, Young Marys and Zelias, Bates topped. Call on or address CHAS. L. BUSH, Washington, Mo.

SHORTHORN BULLS FOR SALE! Saron Thorndals 128,500; Dark Roan or April 28, 1896 at \$200. or will trade him for heifers. Also 6-year utils by Baron Thorndals and out of dams of Rasterday and Secret, these strains have been in the heir lines 1806, and are great milkers. Call on or address.

SHORTHORNS, BERKSHIRES and JACKS Shor; horns Scotch or Scotch Top and Bates mostly. Berkahires best blood in America and England Stock of all ages and both sex for sale. Call on or address, N. H. GENTRY, SEDALIA, MO.

ST. LOUIS NATIONAL STOCK YARDS,

THE LIVE STOCK MARKET OF ST. LOUIS. eated at East St. Louis, directly opposite the city of St. Louis. Shippers should see that their stock is billed directly to the National Stock Yards.

SCOTT & MARCH, Breeders of..... Registered Herefords.

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HEREFORDS GUDGELL & SIMPSON, 600 HEAD IN HERD. Independence, Mo.

Shorthorn Cattle Bates and Bates Topped. As good blood as the breed contains. Imp. Nonparell Victor 132573, Imp. Blackwatch 158384. Grand Victor 15752 and Windsome Duke 11th, 121622 in service. Young stock for sale. Come and see or address GEO. BOTHWELL, Nettleton, Mo.

CRYSTAL SPRINGS SHORTHORNS

BLACKWATER SHORTHORNS! F. M. MARSHAL, Prop.,

Herd headed by the Cruickshank Bull, Orange Hero 152,665 by Godoy. Females are of pure Bates, with individual merit the stendard. Young stock of both sex for sale.

ORTIZ FRUIT FARM, MISSOURI. sading American families. HERKSHIE I Scotch Terries that have been winner for sale. Visitors always welcome. M. B. GUTHRIE, Maxico, Mo.

N. E. MOSHER & SON, Salisbury, Mo. 100 Head Shorthorns In nord; young stock of both sexes for sale. Cruickshank bull Duke of Hardson 1236 head of herd. W. H. H. Stephens, Bunceton

Ed. C. Weeks, Eldon, Mo.

A DEHORNER The proper dehorner is a Poiled Durham Buil Write or call in reference to same, G. W. JOHNSON. Lexington, Mo.

Aberdeen-Angus Cattle. Hero of Estill 3d 23696 by Heathen Lad 3d heads the herd. Leading families. For sale: Choice young bulls and females. Watson Bros., Judson, Sullivan Co., Mo., J. T. WATSON, Mgr., H. B. Sta-Harris. Mo.

a herd bull—good breeding and a WILLIS KNOX, Shawneetown, Cape Gir. Co., Mo

AVONDALE GALLOWAYS. A few bulls of serviceable age now for sale. Ca spare a few females, 100 in herd. Otto H. Swigar S. end State St., Champaign, Ill.

Shorthorn Cattle

JOHN MORRIS, Chillicethe, Mo. AUCTIONEERS.

AS. W. SPARES, Marshall Mo. am se ing for the best breeders everywhere. Posted o edigree and individual merit. Terms low.

J. WEST JONES, LENOX, IOWA, and CAREY M. JONES, DAVENFORT, IA IOWA'S LIVE STOCK AUGTIONERS. Write before claiming dates.

R. W. MITCHELL,
LIVE STOCK AUCTIONEER,
GENTRYVILLE, MO.
EF I breed pure bred cattle and hogs, my host
of patrons say I knew how to sell them, Write
For terms and dates. R. L. HARRIMAN, Live Stock Auctionee

Up-to-date in every particular. Am selling for the best breeders in the country. Terms low. HARRY GRAHAM, CHILLICOTHE

LIVE STOCK AND GENERAL SALES. AUCTIONEER.



HEREFORD CATTLE! Registered Hereford Bulls for sale; come and see them or write to M. B. Noble, Otterville, Ill. ENGLISHRED FOLLED CATTLE Bastock. EF Your orders collected. L. K. HARELTINE, Dorchester, Green Co., Mo.

SHORTHORN CATTLE. ire Hogs, Angora Goats, Light Brahms and Seabright chickens. Stock and eggs for Call on or address
J. J. LITTRELL, Sturgeon, Me.

AATALOGUES for Shorthorn saies compiled

j or furnished complete at attractive prices.

Address THOS. P. HALL, Breckenridge, Mo. Clover Leaf Farm HEREFORDS
From the best imported and native strains. Farm
situated 2 miles from statien; telephone at farm
Visitors met at depot if desired. Correspondence
solicited. Young stock for saie at all times.
W. G. SWINNEY. Bois D'Arc. Mo., Greene
Co., on Memphis R. R.

SHORTHORN CATTLE—Foundation stock
was tops selected
was tops selected
was tops and Poland

Shorthorn Bulls. A choice lot for sale. Good colors, good it fuals and good pedigrees. Write for prices. W. H. FULKERSON & SONS, Jarseyville, Illin

R, NOBLE—Breeder of Registered Here-ford Cattle, A caolog lot young OTTERVILLE, ILLINOIS. RAVENSWOOD HERD

SHORTHORNS

is head in herd. 20 bulls for sale from 6 to 15 mo id. Scotch and Scotch toped. Herd headed by Lawender Viscount, 134785), the champion Shori forn bull of the Kansac City Show, 1900. C. E. LEONAED, Bell Air, Me. ED. PATTERSON, Manager. R. B. and telephone station, Bunceton, Mo

SHOO-FLY APPROACH

FENOLEUM Kills Lice, Ticks, Mites, Pleas, Etc. Asrnally is drives out worms. On-poleonous. Endorsed by leading veterinal her? free. Senner Bisinfectant Co., 35 Rai Yellowstone Park

Extended tour, leisurely itinerary ith long stops in the Park. Private oaches for exclusive use on the coaches for exclusive use on the drive. Pullman sleeping and dining cars. Established limit to number

going. Escort of the American Tour-ist Association, Reau Campbell, Gen-eral Manager, 1423 Marquette Build-ing, Chicago. Colorado and Alaska Tickets include all Expenses Everywhere. Train leaves Chicago via Chicago, Mil-raukee & St. Paul R'y, Tuesday, July 9,

Rams For Sale.

Delena, Merino and Cotawold cross from noted lock. Ewes sheared average of 13 lbs. Buck 25 lbs. also two Shorthorn bull caves, reads, at the farm of AUGUST C. ORF. Dardenes. Mo.

Horseman.



Roberts. Secretary of the that entries close for their races July 17th. By mistake the

The St. Louis County Fair will be held at Creve Coeur Lake Sept. 19, 20, 21 and 22. Quite a successful fair was held at the same place last year, and it is expected the fair this year will be a great improve on that of last year. About the ment on that of hist year. About the same classes and purses for speed will be given this year that were given last year. Mr. H. Heineman of Ballwin, St. Louis

"how fast must a so-called green pacer be able to step in order to have a sure thing down the Grand Circuit? Echo answers, twice better than 2:08, and another heat right close to the more than 2:08, and another heat right close to the more than 2:08. right close to the mark. Twenty years ago a person would have been called a ago a person would have been called a lunatic to have printed a statement like this, but times have changed since the old stars of the turf held the boards."

Jno. D. Moore, secretary of the South western Missouri Short-shipment Circuit, writes us that at the request of many horsemen each member has added to the already full programme a free-for-all pacing class, purse \$300. Conditions and date of entries closing for this added class are the same as for other classes. Bear in mind that this extra class is added to the programme of each member of the cir-

A dispatch sent out from Hodgensville Ky., says: "Several persons living in the country have lost horses from a disease which is sudden and fatal, but what the disease is no one understands. One farmstarted to town the other day, and, be fore he arrived, the horse he was driving was stricken with the disease and died. Many others have lost valuable animals, probably no less than a dozen horses havng fallen victims to the peculiar malady.

Mrs. T. S. Baldwin, Quincy, Ill., will superintend the big race meeting at Baldwin Park. July 22 to 26, and everything points to a very successful week. Mrs. Baldwin is about the only lady who has the courage to undertake to run a race meeting, and she deserves success. The ne offered is a good one, \$300 purses being hung up for the following events: Trotting, 2:40, 2:30, 2:25, 2:17 an the following free-for-all; pacing, 2:40, 2:24, 2:17 and free-for-all, besides several races for unty and Quincy horses.

Murray Howe, the turf writer who is secretary of the new track at Memphis, Tenn., is likely to cause a decided innovation in the methods of entertaining the ns of his track, in addition to those he has already announced in relation to conducting races. He has decided, it is said, to publish a complete program of the races; the name, color, sex, age and orrect breeding of each horse will be giveach patron of the races will be given a program upon entering the gate. I have long contended that a patron of a race track is as much entitled to a proas is the patron of a theater. To ask a man to pay 10 cents for a program after he has paid a good round fee for admission into the track grounds is an mposition, and Mr. Howe is to be congratulated upon being the first racing manager to do away with the practice, says the "Horse World."

The American trainer is an American duct pure and unalloyed. At his best he comes from the trotting turf, which has no comparative in Europe. The trot-ter was produced and developed in Amer-His production, development and Little Wonder, sister quired more ability, attention than the training of the run-Running has always been a natural racing action, while trotting scarcely is. be improved upon, corrected and developed. To do this the trotting trainer had fast horse than Englishmen. To shoe, bit and gait a horse—things which are hardly done at all in England-required a finer and deeper knowledge of the horse than Englishmen possessed.

ometimes to buy a well-bred colt. Will J. Young has sold to C. W. Lasselle, the owner of Rubenstein, 2:05, the 3-year-old colt Milton, by Allerton, for \$5,000. He was so unpromising as a yearling that Young bought him for \$65, but he happened to be entered in the Kentucky Futurity, \$20,000; the Louisville, \$10,000 Prize, and other stakes. Last year the colt rounded up into a great 2-year-old, and Fred Gerkin offered \$4,000 for him, but his turf. A. J. Alexander, a stable attendant, bought a yearling colt for \$20, and gave his note for it, the owner preferring to take the paper home rather than the colt. The colt was named Senator A., who won the vast majority of his races, including the great Transvlvania Stakes. wner held out for \$5,000, and got it. Such

horse on a comparatively empty stomach, but passes out almost at once. A considerable portion goes directly into the intestines, and is a sense flushes the stomach. If the horse has just been eating, the tendency is to do the same thing, and if the horse has just eaten a large quantity of oats was born, Zebu, 2:29%, by Regent, son of is worth.

The flutter—the offect me greatest sire, the other the greatest progenitor ever the other the greatest progenitor ever seen.

Every man who owns a buggy or a carriage should have a copy of the free book sent out by the Ohio Carriage Mfg.

Co., 12 West Broad street, Columbus, Ohio. It not only gives special prices on has just eaten a large quantity of oats

the chances are that a considerable por tion will be washed out directly into the ntestines before any form of digestion akes place, and the horse not only loses he nutrition the food might supply, but ilso the process is unnatural.

Everything connected with the lightnarness-horse industry has come down to a practical basis, and the breeder or dealwho does not recognize this condition affairs will be compelled to quit the isiness, Columbus very truly says in the Western Horseman." Buyers are be-ming more critical each season, and ard before he will bring anything like a top price. The day for breeding accord-ing to the owner's idea of what a horse the market requires or make a failure. money to be made is not on the many that can be produced, but upon the high-class horse, that requires care from the day of foaling until he is placed upon the market. A majority of breeders are not situated or inclined that they can furnish just the sort of horse now selling for ong prices. It is one thing to breed a one prices. It is one thing to breed a colt, another to properly grow and mafit him for market. The breeder may receive a fair price for a good horse in the rough that, with proper education and care, will afterwards sell for a long price.

dalia. All of these associations have done gives those who do enter a much better chance to win than if the fields were louble the size. There has never been in state will make entries forthwith. Saturgrammes carefully and make entries as should honors go to Arkansas? uggested.

L. E. CLEMENT'S HORSE GOSSIP.

Editor RURAL WORLD: The June eeting at Rich Hill is off owing to a

ack of entries. Riley B. and Little Squaw are stepping niles in 2:15, Lon Kelley and George T. in :24, California and Flossie A. in 2:28, and thers, on the Kerr's Park track, in slower time. Hon. W. J. Buchan, owner of Hershon, sire of Flossie A., 2:24%, has bought of H. F. Wulf Silke Tie, by Silkvood. Most of the readers of the RURAL WORLD know that Walter Morrison is again handling Lon Kelley, 2:17¼, that Riley B. and Little Squaw are in the stable of W. F. Ervin. Avenue King, Cali-fornia, and Flossie A. are under the suhorse-trainer and general good fellow, and we here thank him for the above inormation contained in a late letter on ther matters.

John Nowles, breeder and owner of Lit-

tle Timber, brother to Big Timber, 2:121/4,

and that bred and raced Big Timber in

his three-year-old form, last year leased the racing qualities of Little Timber and got him back last fall without a start, and uncertain if he wanted to go a harness or saddle gait. On Tuesday, June 4. Nowles wanted to see the horse from the ground, and put up Tom Kyle, who drove him a mile in 2:28, the middle half in 2:111/2. John Nowles says he won one race in the Grand Circuit with Big Timber. something some drivers never accom-plished. John deserves great credit as a onditioner and balancer, to take a horse in the shape Little Timber was the first of November, and balance and condition him to trot a 2:23 gait the first of June. Mr. Norris, who is handling E. Knell's horses has been obliged to turn out the to the broker legged Grasshopper and Texas McGregor, 2:244. She was as fast or faster than either of her brothers, but will require time to take care of a young Kankakee The natural action of the trotter had to be improved upon, corrected and develthe starting bell's recall. Mr. Norris

prize in the world, has been won six gave Emma Knell, by Ben McGregor five casy miles recently. She has the speed Wilkes, while Electioneer has only one to become a student of equine anatomy to a greater degree than his runningto a greater degree than his run much wider knowledge of the it will yet be no diversion to keep her family, for while the female line is far

the place. The papers had not been get were trained. Owned by a man of signed when I saw Mr. Knell, and as there is many a slip 'twixt the cup and the lip, we will wait further developments with what patience we can command. There is interest at Carthage, E.

M. Hoed here of wed celt in training the greatest colt trainer and speed maker

coit. The coit was named Senator A., who won the vast majority of his races, including the great Transylvania Stakes, took a record of 2:10, and was sold to go to Australia at \$10,000. Robert J., 2:01½, was sold when a 3-year-old for \$225, while the mare and stud fee, which produced Soctell, who was sold for \$105,000, only cost his owner \$175.

Men differ as to whether a horse should be watered before or after feeding. From the nature of the horse's stomach it would seem that the horse should be supplied with what water it wishes before eating. It must be borne in mind that the large portion of water taken in by a horse on a comparatively empty stomach does not remain in the stomach, but wishes before and comparatively empty stomach does not remain in the stomach, but wishes before the contraction of the contraction of

duced us to drop in on the old horse in his new home. A ride behind a four-year-old black out of an ordinary farm mare convinced us that with opportunity Zebu would sire speed. This fellow can pull a buggy a strong three-minute gait, and might make a trotter. Two daughters of the old horse are at home at Kell's barn, one out of a mare by Top-stone thoroughbred, the other out of a Springfield Dillard mare. Whisper it over to Trotwood. Mr. Kell's favorite "Western Horseman." Buyers are becoming more critical each season, and
the horse must come up to the best standard before he will bring anything like a

p. 2:25%, by Durango Chief, is suckling a young Hal, not an ordinary Hal, but a Middle Tenn. Hal, sired by Irvin H., son mg to the owner's idea of what a horse should be is past; he must produce what the more requires or make a failure. made Sept. 24, 1889, at Columbia, Tenn., by Bay Tom, by Bedford Beauty, by Knight's Snow Hills. (This Bay Tom is given in the Year Book as untraced.)
The dam of Alice is Beldy, by Bay Tom,
Jr., 2:30, sire of three trotters and eight pacers. Isn't that good old Middle Tennessee breeding equaled by few and surlong prices. It is one thing to breed a colt, another to properly grow and mature, and quite a different proposition to fit him for market. The breeder may repacing conformation of 30 years ago. While others have been breeding away

from it, Middle Tennessee still holds much of the old type in her pacers, judging from two horses, Irvin H. and Clifford H. Jr., brought from there. The latter is by Clifford H., son of Major P., 2:28, dam Susie Bone, by Black Hal 2d, dam Nellie, by Bonesetter, 2:19, third dam Nellie, by Tom Hal 16934. The dam of Neille, by Tom Hal 16894. The dam of Irvin H. is Alice, by Major P. She is in day of entries for Columbia, Mo., the Short-shipment Southwest Missouri Circuit, and the Missouri State Fair at Section Hal, old Fidelle, produced the trotter Dilly of these exceptations have done. Billy A., 2:13, and you can look for some their part well. They have selected good trotters and pacers from the hills around classes, given good purses, advertised fayetteville, Ark., in the very near their races most liberally, and have future. While I found the Hals with the spared no pains or expense to secure suc-old pacing conformation, I found also the essful meetings. We are aware that fast Missouri saddle horse in his perfection. trotters and pacers are not as plentiful as they were a few years ago, and it is quite pany and a breeder of Berkshire hogs, difficult to fill the classes well, but this has started to breed gaited saddle horses. Irvin H. and Clifford H. Jr., look like business saddle horses, but Mr. Dun-can has a prize winner in a son of Ar-tist Montrose, a little brighter in color, Missouri a better chance for horsemen than is afforded by the meetings advertist Montrose, a little brighter in color, than is afforded by the meetings advertist mortouse, a little brighter in color, that is a first winner in a son Artist Montrose, a little brighter in a son Artist Montrose, a little brighter in a son are the son and a prize winner in a son are the son and a prize winner in a son are the son ar norsemen in the state and outside the any colt I have ever seen. Mr. Duncan tate will make entries forthwith. Saturflay of this week is the last day. The next day is too late. Read the pro-

> GEORGE WILKES AND ELEC-TIONEER.

George Wilkes and Electioneer families is very marked at present, and statistics on the subject are of great interest. Comparisons made from tables are sometimes misleading, as each family excels in some one particular, says the "Stock Farm. Each of these two families, for they are distinct, although coming from the same fountain head or tap root, have so many of the elements of greatness that an attempt to disparage by comparisons would be useless. In point of extreme speed, parity of get and excellence of form, the Electioneer family must be considered the family characteristics of the Elec-tioneers are more desirable than those of the Wilkes. There is more finish, quality and beauty of form to be found in can be found in those of the former champion stallion. No such trotter as The Abbot has come from the George Wilkes family; no colt that was comparable to Arion can be found in all the latter's descendants. Electioneer was, all things considered, the greatest sire of ord from the yearling to the world's championship. This in itself is greatness

Yet the comparison is not all favorable to the son of Green Mountain Maid, for among those descended from the once famous trotting race horse have been the warriors of the track. For courage gameness and endurance, the Wilkes family has few equals. If one were to ask which among the families of the trot-ting world have been the money winners, the answer would be the Wilkes. A large percentage of the great battles on the trotting turf of the past decade have found the Wilkes family in the front rank. The Futurity, the richest trotting George at the prescribed gait continuously in ahead in point of numbers, the male line hot company, to the end of the race.

The wind work is done for a meeting of the triple to fellow the meeting of the state Fair at Sedalia, said meeting to be lion, the first conclusion would be that conducted and controlled by Mr. Norris. Electioneer was the best. Not on ac-Carthage will be fortunate if the meeting is placed in the hands of Mr. Noring for his life work has fitted him for a very large percentage of Electioneer's M. Hood has a good colt in training. Joe Wilson has bred his St. Just mare to Carlon C., son of Ben McGregor. Mr. Johns has a daughter of Sidmont with

TYPE IN BREEDING

I have often thought that if a sire could I have orten thought that if a sire could be found which could type his get so unit formly and to so high a model in conformation, action and disposition that they would match up in double harness, as the Black Hawk blood did, he would be worth a great deal to the trotting horse interest at this juncture, for while every form and gave entire breeder wants his chance of speed, he wants in addition a versatility of acquire.

Manel Carler (Miller) Madel Carler (Miller) ments in harness for those which do not race. The showy, handsome harness horse in closely mated pairs is destined to run to very high figures for many years to come. We occasionally see a family likeness that runs quite uniform and suggests

at once its breeding, but family likeness

does not count so much unless the type partakes so strongly of lines of grace and beauty as to mark at once a horse so far above the ordinary as to command immediate attention and admiration. But many of our beautiful stallions, like King Rene, Mambrino King, etc., have falled to breed closely enough to their own type to give the required facility in matching up pairs. Some of our Hackney breeders are promising us great things in that line, and I am not one who scorns the Hackney in his place. But the American harness horse breeder longs for his chance of getting a flying trotter with each coupling, though willing enough to accept any secondary advantage where the prime object is missed. That object, to a moral certainty, would be entirely thrown away by sending his mare to a Hackney stallion. Then he asks himself, are there no trotting Black Hawks in the

stud to-day? It must be confessed that they are few. though there seems no incompatibility be-tween speed and beauty. Pamlico (:210) will be remembered as a stallion of regal beauty, combined with superb racing qualities. I do not know how nearly to type his foals followed him. Another plendid race horse of beauty and action arely combined with such speed is Lynne Bel (2:10), and a good share of his foals are typed by nature as his sons, but daughters might be added, in this case, without violence to the facts. And they ace, too

Starting with such'a model and keeping

up the type; there is no reason why, within the trotting breed and close to its champion lines, there may not be built up a tribe of light-acting, up-carrying horses fit for heavy harness pleasure driving, with all of the style and greater endurance than any breed for like uses of which the vital force is not maintained by a turf test. By the same token that the thoroughbred, a race bred up by the test of turf performance to the highest degree of vital force, was found to improve all other breeds and acquired the title of "the blood horse," so is the trot-ter following in his footsteps, and ac-For this reason I believe that for practi-cal use the Hackney trotter mixed will by a Pennsylvania breeder of Hackneys, who has sent two of his pure Hackney mares to Lynne Bel for service. It does not matter that extreme speed is not always be better than the Hackney pure. wanted in the heavy harness pleasure driving horse; the ability to maintain a high flight of speed a long distance image you ever saw." plies a high order of vitality which is a reserve force and factor of endurance at slower paces. Lynne Bel, of course, is not confined to breeding show horses. It is on the speedway and track, he said: the superior. As far as has been seen plies a high order of vitality which is a tito neers are more desirable than those of the Wilkes. There is more finish, quality and beauty of form to be found in the descendants of the Palo Alto sire than the descendants of the Palo Alto sire than to his cover, and they come from all directions and from practical trotting sportsmen. In fact, that is the main issue in his case, and the few mares he is covering with direct view to the show ring or the park horse market are but on things considered, the greatest sire of show that a demand is growing for more natural speed that ever lived. His descendants have held every trotting reciping to the trotter to supply it.—Hark knees, but the weight straightened him Comstock in the "Horse Breeder."

GRETNA FARM.

This establishment will, as usual, have stable on the circuit this year, says he "Horse Review." Mr. Gorton, hav ing secured the services of James F. Ramey, will try to do with Ramey what he did with George West, only that the table will be a smaller one than that anaged by West for the past few years. Ramey and his assistants have been jogging some of the horses for some time out at the farm, but none of them have ecords with the exception of Fanfaran the Tommy Britton filly that West broke and started for the first time last year

distinguished herself by being distanced after winning a heat in her first race. It is too early to say what the stable will be, but it has been customary for the Gretna farm to get a fair share of the money, and Mr. Gorton says he will try and keep up the practice. Mr. Gorton always gives a great deal of attention to always gives a great deal of attention to the preparation and entering of his horses and this year will not be any exception. As soon as the stable is decided on a list of the horses will be given.

Tommy Britton is being jogged daily and never looked better. There are forty grand mares aiready at the farm to be bred to him, and many more booked; at this rate his book will be full in a short time, and his owners think he will be one of the greatest sires that has ever lived. He has but eight living coits, two of which are four-year-olds, six being yearlings, and they are all good individuals, all good looking and all trotters. The service fee is \$100.

KENDALL'S SPAVIN CURE

Opened Wednesday, June 5th, with a goo He was ir form and gave entire
2:20 pace, purse \$300:
Lola Mix (Wilson)...
Mabel Carter (Miller)

Mabel Carter (Miller)
Enga (Smith)
Baby Kid (Parker) ... (Bockhouse) . Girl (Mettler) Jennie Bell (Niles) ... Crawford (Chapin) ... Sleepy Ned (H. Barne Mayflower (Wells) ... Lilly Moak (Mettler) Athlete, Jr. (Ostrand Our Billy (Rathbun) Time, 2:234, 2:244, 2: 2:49 pace, purse \$300; Klowa (Cunningham) Clowa (Cunningham)
Jonnie Onward (L. E. Barnes)
Vora Wood (Niles)
Mamie F. (Tatro)
Jina K. (Gray)
Jena S. (Phinney)
Settie Walker (Hardie)
Jokk Cheeney (Tibbits) ick Cheeney (Tibbits) ...
r. Ray (Hitchcock) ...
Time, 2:24%, 2:24%, 2:22%,
2:40 trot, purse \$500:
W. (Kathan) Free-for-all pace, purse Charles Dewey (Edwards Shrimp (Wells) Lou Sprague (Campbell) Niclas J. (Leak) Country (Girl (Tibbits) General Otis Wilson Electric Storm (Pepper) Shelah (Granno) Alpha W. (Smith) Time, 2:194, 2:204, 2:18 (Edwards)

TOE WEIGHTS TO DEVELOP MUSCLE

Most every race goer knows George Garth, the Alabama trainer, owner and driver. He has campaigned horses over New England tracks very successfully for the past four seasons, and he is one of the most respected men connected with the horse business. He has been excep-tionally successful as a trainer and developer of horses. He has used his head as well as his hands in his methods, and quiring the same ability to improve the vital force of whatever he crosses upon thing. Here is what he has to say with regard to the use of weights, says th "Horse Breeder.

"I know they think it is the idle dream Then her legs developed clean and hard, and she was as game and speedy a mare

"The first thing I did when I got the gelding was to change his nine-ounce shoes that he wore to sixteen-ounce shoes. In addition to this I put three-ounce weights on each foot and jogged him on the road for some time with this weight This had the effect of developin a side matter. Still they are enough to and strengthening the muscles of his for show that a demand is growing for more legs, and more than this, when I go up. I never speeded him when he was wearing this heavy iron. When I changed I shifted back to nine-ounce shoes. first time I went to the track with him he could fly, and the way he speeded astonished the trainers, who had seen him before I got him—not only the speed he showed, but the way he did it. I attribute my success with him very largely to the weight I put on him when I first

Cedar Rapids, Iowa, July 27, 1900.
Dr. B. J. Kendall Co.
Gentlemen: "I have a fine French coach horse which no moderate amount of money could possibly buy. Three weeks ago while standing in the black-smith shop he ran a rusty wire nail into and started for the first time last year as a three-year-old, when he gave her a record of 2:25. The horses are all very fat and strong, but they will not be in condition to show very much speed until late in the season, and for that reason the stable will not start to race very early.

Some of those now being jogged are being prepared to be soid as roadsters, and the others are young things that will not be started for another year. Strange to say, the stable has but one pacer, Dacey, raced last year with very inferior success, and was distanced in his first race, but that does not discourage Mr. Gorton, because one of the best mares he ever owned, Valley Queen, distinguished herself by being distanced after winning a heat in her first race, at it is too early to say what the stable will be, but it has been customary for

"An unsolicited testimonial." C. B. P.

SORE NECKS AND GALLS ON
HORRES.—Just here at the opening of
the warm season, it would not be out of
place to throw out a few hints and precautions as to the treatment of horses
suffering from those purely warm weather troubles, sore neck, shoulder gall, harness and saddle galls, etc. The most careful horseman may have trouble of this
kind, as such things develop almost before you are aware of it. It is well to
be on the lookout always when the weather is hot and when horses are likely to
perspire freely from their exertions. It
is advisable always to keep the collars
and harness well cleaned and freed from
any excretion. The top of the neck, the
shoulders and back of the horse should
be kept clean and bathed at least every
evening with some preparation which
will tend to remove any possible inflammation and soreness. A preparation
which is widely used and very generally
indorsed for this purpose is that wellknown veterinary remedy. "Tuttle's Elixir," which is manufactured by Dr. S. A.
Tuttle of Boston. See our advertiseing columns.

To prevent annoyance and possible loss

Tuttle of Boston. See our advertiseing columns.

To prevent annoyance and possible loss
of both time and money it would be
well to keep a supply of the Elixir on
hand ready against the time when you
shall need it. It is for sale at all drug
stores or will be sent direct by the manufacturers. Write Dr. Tuttle for a free
copy of his book, "Veterinary Experience," which contains many valuable
points on the diseases of the horse and
their treatment.

A NEW HARNESS AND BELT MENDER.
Latest and Safest. One box cost 26 by mail and saves \$5.00 in Repairs. Cut broken parts equare, jan together, use one mender with a rock or anything. Any strap mended in one minute. Set shoe mender made. Maranila Noveltz Co., Cairo, Ill.

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logue No. 6, quoting prices on Buggies, Harness, etc. We sell direct from our Factory to Consumers at Factory Prices. This guaranteed Buggy only \$31.50; Cash or Easy Monthly Payments. We trust honest people located in all parts of the world.

Write for Free Catalogue. MENTION THIS PAPER.

CENTURY MANUF'C CO., East St. Louis, III.

MOBERLY, MO., RACES. JULY 23, 24, 25, 26.

2:45 Trot......\$200

Free-for-all Pace. Running, %-mile dash, \$100; 6 furlongs, \$100; %-mile dash, \$100; 4% furlongs, \$100; 1 mile Novelty, \$25 for each %, \$100; 5 furlongs, \$100; 4 mile dash, \$100; all horses that have not been one, two or three at this meeting, %-mile dash, \$100. Entries close July 17th.

Entrance fee for runners, pacers and trotters, five per cent and five per cent additional for winners. American Trotting Association rules govern this meeting.

W. R. CARTER, Track Manager.

A. C. DINGLE, President. E. W. ROBERTS, Secretary.

GRIGGSVILLE, ILL., FAIR.

JULY 30, 31, AUGUST 1, 2.

SPEED PROGRAMME.
ULY 30. THURSDAY, AUG. 1. Parie, 8300

No. 9-3:25 Trot.

100

No. 10-Free-for-All Pace.

100

No. 11-1 Mile Dash Running.

100

No. 11-1 Mile Dash Running.

No. 15-1 Mile Dash Running.

No. 15-1 Mile Dash Running.

No. 15-1 Mile Dash Running.

No. 15-2 Mile Dash Running.

N WEDNESDAY, JULY 31. 1. American Trotting Association Rules to govern. 2. All Races mile heats, best 1 in 5. 3. Entries to all Trotting and Pacing Races will close as 12 o'clock Saturday night. July 27, 1601. 4. Entrance feel in all Races per cent and 5 per cent additional from winners. 5. Horse distancing the field or any part thereof to be entitled to first money only. 6. Purses in Trotting and Pacing Races divided 50, 5. 16 and 19 percent. In Running Races 60, 55 and 19 percent. The Running Races 60, 55 and 19 percent. The Races of 5. The society reserves the right to declare any or all races of on account once will be refunded except in cases where of the race of

SHORT SHIPMENT RACING CIRCUIT OF S.-W. MO.

MEMBERS OF CIRCUIT AND DATES OF MEETINGS

Stake Race Program, 1901.

COLUMBIA, MO., RACES,

JULY 30, 31, AUGUST 1, 2.

STAKES

se June 15th, 1901. We follow ing at Holden, August 6th; 1 h; Higginsville, Bept. 3d; State Mo. Circuit; T. B. Baldwin one or two areas.

MISSOURI STATE FAIR.

At Sedalia Sept. 9 to 14.

.\$ 500 | Stake No. 6-2:35 Class Pace. Stake No. 7—2:35 Class Pace. Stake No. 8—2:17 Class Pace. Stake No. 9—2:10 Class Pace. Stake No. 3—2:30 Class Trot. Stake No. 3—2:27 Class Trot. Stake No. 10-(3-year-older un

Entries Close June 15th, 1901

The State Fair falls in line with and forms one of the links of the Short Shipment Circuit of 8 Mo. American Trotting Association rules to govern. Entrance fee, five per cent.; two per cent. able with entry and three per cent, before starting in race. Five per cent. additional deducted all winnings. Stakes not filling satisfactorily declared off and entries transferred to next faster unless objection is made thereto at time of making entry. A horse can win but one money in a Moncy divided, 26, 25, 15, 16. Right reserved to change order of programme, postpone or declar races for case. For one full entrance fee of 5 per cent., paid at time of making entry, a nominator enter and name two horses in one class, or one korse in two classes, the starting horse and class in all referring the different comminator conter and name two horses in one class, or one korse in two classes, the starting horse and class. pld for the additional entrance fee of five per cent. Record no bar after June 1, provided entry a seconding to rules and conditions prior to date on which record is made. One running race Entries to be addressed to J. E. RIPPEY, Secty. Missouri State Fair, Sedalla. Mo.

BALDWIN PARK RACES.

No. 5-2:25 Trot. 800.00
No. 6-2:17 Face. 900.00
No. 6-2:17 Face. 900.00
No. 13-2:20 Trot. 800.00
No. 14-2:24 Pace. 900.00
No. 15-2:40 Adams Co. Trot or Pace. 50.00
No. 15-2:40 Adams Co. Trot or Pace. 50.00
No. 15-4:11 Trot. 800.00
No. 15-4:11 Tro N. E. WOODS, Professional Starting Judge.

Rewise Boree Remercy Co.



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Has good Vhasis, Azies, Springs, otc. Guaranteed ONE YEAR. Best work, lowest prines. Spring for Pres Gatalogue. CHAS. C. OLAEK & CO., 25 S. 1st St., St. Louis. To cure a Wind Puff or Strained Joint: Steam the part with very hot water for 20 minutes, rub dry and apply ABSORBINE

once or twice a day, rubbing it in. At night saturate the hair full of the following wash: 1 oz. ABSORBINE, 3/2 pint vinegar and 1/2 pints water, cover with a layer of cotton and bandage over.

ABSORBINE and by regardelivered for 52 per battle. Mar. by

Home Circle.

THE SOUL'S SPRING CLEANING.

Yes, clean yer house, an' clean yer sh An' clean yer barn in ev'ry part; But brush the cobwebs from yer head, An' sweep the snowbanks from yer heart.

Yes, w'en spring cleanin' comes aroun' Bring forth the duster an' the broom, But rake yer fogy notions down, An' sweep yer dusty soul of gloom.

Sweep ol' ideas out with the dust, An' dress yer soul in newer style; Scrape from yer min' its worn-out crust An' dump it in the rubbish pile. An' dump it in the that burn an' smart, Bring in new loves serene an' pure; Aroun' the hearthstone of the heart Place modern styles of furniture

Clean out the morril cubby-holes, Sweep out the dirt, scrape off the scum 'Tis cleanin' time for healthy souls-Git up an' dust! The spring her come Clean out the corners of the brain, Bear down with scrubbin'-brush

An' dump ol' Fear into the rain

Clean out the brain's deep rubbish-hole, Soak ev'ry cranny, great an' small, An' in the front room of the soul, Hang pootier picturs on the wall; Scrub up the winders of the mind, Clean up, an' let the spring begin; Swing open wide the dusty blind, An' let the glorious sunshine in.

Plant flowers in the soul's front yard Set out new shade an' blossom trees, An' let the soul, once froze an' hard, Sprout crocuses of new idees, Yes, clean yer house, an' clean yer she

An' clean yer barn in ev'ry part; But brush the cobwebs from yer head, sweep the snowbanks from yer S. W. FOSS.

Written for the RURAL WORLD KNOWING THEM BY NAME.

Our utter inability to call by name the various plants we meet in our walk down the roadside or in our rambles through the woods at times makes us painfully conscious that our education has been deficient. Many a bright little beauty peeping at us from among a group of plants is known to us only as a "spring flower." Its name is Greek to us, and its manner of growth or reproduction is still

young lady in a rural district gave an entertainment to her friends, and she was determined not to have one of those stiff sit-still affairs that so often char acterize country gatherings of young people who are not very much acquainted. A friend had given her a hint. So she orated her home with wild flowers and then made a collection of as large a as possible of the wild flowers growing in her vicinity. These she brought home with root, stem and leaves and put in small boxes, cans and some on plates. If this could not be done the blossoms were at least secured. With taste the home was made to look beau-With with these wild-wood and prairie beauties. Then a pencil and paper were given each guest, and each one was re-quired to write the name of all the plants known to him or her. Each plant of was numbered, and the name of the plant was to be written opposite its num-

The effort to create a social atmosphere was a triumphal success as it gave some-thing to talk about. Then, too, many a lad and lass realized how lacking they were in knowing the names of the plants they had always been familiar with. They found calling them "flowers" was rather indiscriminate. They also found in the collection flowers and plants that they had never before seen, because their eyes vere not open to see them.

Now, is it not true that our boys and

girls on the farm are not even trained to note the various grasses that grow in various localities on the farm? Do they not invariably call the clovers

Then, do we teach them to know the rious trees in the woods near by and call them by their proper names? On one occasion a modest woman who dearly loved flowers was in company with the writer when viewing a bed of geraniums. And it was a lesson never to be forgotten, as she tenderly touched the several plants and called them by name, inately-geraniums.

the charming La Favorite, another Mrs.

hrow away our opportunities.

The very fact that we know the names of the wild flowers and trees in our locality will make us more observing and us to note their individual char-

varieties of corn and these were yellow, white and pop corn. This statement may be somewhat overdrawn, but do our boys really know many varieties of corn? Is not the same true of varieties of apples?

The time to develop the perceptive fac The time to develop the perceptive fac-ulties which enable one to note differ-ences even when the similarities are quite close, is in childhood. The powers of observation are then most caute, and memory is also then most capable of cultivation. The children then love flow-ers and the learning to know the flowers and calling them by name will be a deand calling them by name will be a delight and not a task. Teach them to the orchard they will eat Maiden Blue and Baldwin apples, etc., and in the vine-yard will gather Concord, McPike or Del-

MRS. MARY ANDERSON.

Caldwell Co., Mo.

ITS has been used for over sixty years
will show by millions of mothers for their
WIESLOW'S ing with perfect vacshould like to greet each member,
lid and new, with a personal greeting
and shake of the hand, but—was that a
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MRS ELLA CARPENTER.

With this issue we are pleased to giv o our readers the photo and sketch of the ife of one of the RURAL WORLD'S long time correspondents. We know the Home Circle readers will be pleased. Mrs. Ells Carpenter was born in Fairview, N. Y. Jan. 27, 1883, according to the old family Bible. She was married to Mr. C. E. Carpenter of Schenevus, New York, at the age of 17 years. They have five chillren living. Her father was a minister for over 40 years; a man whose life was spent among books. Her love for writing is inherited. Her

grandmother's name was Locke; she was a irect descendant of John Locke, the en and writer. He wrote the "Essay on the Understanding," you remem-ber, Robert Ross Locke of the Toledo 'Blade," better known as "Petroleum V. Nasby." was a kinsman of hers. Hannah Moore, the writer, was a relation besides half a dozen lesser lights in litrature

It will soon be a quarter of a century since Mrs. Carpenter began writing for the RURAL WORLD. At the beginning of her work she was very successful as a writer, getting some compensation from journals, and many kind notices from eople of literary standing. But nearer, nore sacred duties claimed her time and trength; so she gave up writing for the press except an occasional contribution. She has ever believed woman's best place was in her own home, caring for those dependent on her. To raise her children aright has been her heart's desire. She has traveled much and has hosts of friends everywhere she is known; which s a comfort to her, now that home work shared by others and she has time to

ake up her pen again.

The prospects of success are very bright once more. Her pathway through life has been through much tribulation. She has kept the desire of her life thus far, her faith in God and humanity, though the latter is badly shaken at times.

This glimpse of the life of Mrs. Carpenter discloses why her articles have been so prized by RURAL WORLD readwritten where men see. The former choice writes names in hearts and in character, while the latter may beget unholy ambitions. The words from the pen of such an unselfish life will sink leeper than from the one who only desires to win fame for fame's sake.

Written for the RURAL WORLD.

Is there room for me again in the dear old Circle, after my long absence? Though bereavement and affliction have been my lot since my last appearance, I have never forgotten the warm hearts and symathetic charmed portals. There is truth in the poet's words, "Though lost to sight, to memory dear," and the pleasant interhange of experience and friendly comment found in our Home Circle page have brought a gleam of sunshine to brighten many a weary hour during the long months that have passed since last I took ip my pen to add my mite to its cheerful

But do not be frightened, Mr. Editor! have not brought my burdens along to nflict them on my H. C. friends, in this

"Into each life some rain must fall, Some days must be dark and dreary."

But we do not need to make them darker

and come down to plain business. Mrs. McVey's letters are like angel's visits, "few and far between." Never-

or neip in our gardens and orchards. We will note the plants more carefully and insect ravages will be noted before the plants are denuded of leaves.

So neglected has been this phase of the ducation of the children on our farms that a corn expert stated recently in our the control of the children of the children on our farms that a corn expert stated recently in our the control of the children on our farms that a corn expert stated recently in our the control of the children on our farms that a corn expert stated recently in our the control of the children on our farms that a corn expert stated recently in our the control of the children on our farms that a corn expert stated recently in our the control of the children or t between the lines, know that Idyll is a busy woman. In the midst of her numerous duties in and around her new home, her pen is never idle.

Mrs. Cody is another writer whose let-ters are always brimful of interest and practical good sense. I was delighted with her defense of our canine friends. Even the humblest cur possesses the quality of loyalty and fidelity to his owner, and surely such a quality should cover a multitude of sins. Mrs. Cody is another busy farmer's wife, who finds time to to remark" that I fully intend to be that wield her pen in various directions, and a charming story in a high-class Boston magazine of recent date goes to attest

her success in this field. C. D. Lyon, I cut out your recipe for improved cottage cheese, and have it safely put away in my most cherisl cook book, in readiness for use at the first

opportunity.

I read Elia Carpenter's letters and those from her daughter, with great interest. Ella was one of the old Home Circle band, which has been sadly thinned by

"PLEASE KEEP YOUR HENS AT A maiden lady owned a piece of ground summer she was

Within her garden. But her neighbor A flock of hens, and while she worked or

speed, "shooed" and stoned them-quite un-

The while her neighbor laughed until he

Will not be daunted by a Leghorn hen.
The hand that rocks the cradle, still can Man's ridicule, and give his nerves a

shock. Our lady cried a bit—as was her right—

Then took some cards and on each one did write.

she strung to each-with early break of

Back came the hens; they gobbled grain and string-'hen back for home they started on the

wing. every mouth there dragged the ease keep;"

his heart was hard, shame cut through it like a knife,

-Rural New Yorker.

Written for the RURAL WORLD. SPARE THOSE TREES

"O, Mr. Cross, don't cut those trees own! Just put up your house north of them, so they will be in the yard; but lose enough to throw a shade on your porch during the hot summer months. Leave them there through two summers, and then if you do not want them there, cut them down. But do wait and see ou can have evergreens grow large nough to give you any shade for you ouse and yard."
"O, they are only oak trees, and I

want evergreens in the yard."

"You can plant them in the yard, too, there is plenty of room, besides ever-greens grow so slowly and you are an old man. Do, please; just to please me, wait until fall, at least, before you cut those trees down. Plant any others you wish, but spare those three trees that long, and I'll come and sit on the porch with you, to help you enjoy their shade this symmer."
"Well, I will leave them," he said, "just
"Well, I will leave them," he house there

to please you, and build the house there where you suggest. I think that the best place for the house myself, and so do the girls."

Mr. Cross, who was a widower with two grown daughters, had just bought a piece of ground lying between the grave-yard and the public road, a very pretty place for a home, with the forest trees ers—a good heritage, lofty aims and conscious purpose to do the duty that is cutting down the nicest trees in the lot cutting down the nicest trees in the lot and the ones nearest the road. I saw him constants of the constant of the const markedly one's own, even it be to per-form the quiet, unheralded to the world home cares rather than to have a name of the place is only about one mile from our home, and I was well acquainted from our home, and I was well acquainted with the family, so took an interest in what was to be their new home. When seeing what Mr. Cross was about to do, I got out of my buggy and went to him and the trees were left standing. He built his house and lived in it three or four years when he and the man that owned land joining his land got into a dispute about the line between them, and to settle it they got the surveyor (my husnent and affliction have been my lend) to survey the land. In order to do it he had to get Mr. Cross' deed for his words to be found within its that the land had been given to trustees for a graveyard and church purpose many years before—over 50. The man who gave the ground for the graveyard and church had made the deed so that it could never be used for any other puroose. Of course, the deed that Mr. Cross had was not a warranty deed, and he could not hold the land. So he moved his house on to the other place; but had he staid there, he would not have lived to have seen his evergreen trees large enough to do him any good as a shade, for he has been dead over 20 years.

The oak trees still stand there, making beautiful shade for a large, nicely built M. E. church, where there is regular preaching, and where the young receive all called by name as if they nad been daughters in her family. This knowledge by sombre looks, nor add to their drearing the dead are placed in front was largely obtained from flower catalogs. I could not but think how we do throw away our opportunities.

But we do not need to make them darker baptism and the marriage rite is performed, and the dead are placed in front of the altar while the minister tries to comfort the mourners in their bereavement pointing them up to a loving Fathbaptism and the marriage rite is Ahem! Now we will stop moralizing er for hope and trust in a living faith, in a Savior's love, before they have to go out to the graveyard, which is so close, there to bury forever out of sight their loved ones.

I have often thought of how near those beautiful trees came being cut down, and would have been only for my pleading for them to be left standing. They were words spoken at the right time and in ROSA AUTUMN. the right manner. Fayette Co., Ill.

Written for the RURAL WORLD. A VISIT TO WOODSTOCK, ETC.

ere this, and chat, but (now what shall I say—well, I didn't, that's all). Nevertheless, I have listened to the chat of others with an interesting ear, and Mrs. Cody's kind wish that I would be a tramp and come out there inspires me to same when vacation time rolls around, as to give me a chance, for the delight ful day Nina and I spent at her sylvar home last year lingers in memory like the fragrance of sweet clover. The picture comes back; a suburban street car ride

he catch it as long as patience lasted— ours; his patience was inexhaustible. It

through clover lots and bits of wood; a walk, and that walk enough to make anyone wish to turn tramp at that time of year, the end of May; trees, lawns and fields at their greenest; the air sweet with country scents and melodious with the songs of birds; at the end of the walk a farm and a vine covered cottage hom in a nest of flowers; fruit trees; a ham-mock in the shade; a cordial welcome from old friends, and finally a dear brown dog with curly ears coming forth with a joily a dog welcome as possible, and a cob in his mouth provided for our enter-tainment, so that we might throw it and

was strawberry time, and that strawy short cake—don't talk! Then a to "the farm spring" in the shade noble forest trees and wild grape vines, and last of all a pleasant drive back to the street car line, with loads of flowers and lovely growing things to plant out in our bits of city yards. I'm

We had the pleasure of a short visit from Mrs. Cody not long since, and a great pitcherful of snowballs, white lilacs, jonquils and other floral delights

was a pleasant souvenir thereof for sev-eral days afterwards. I always loved the country, and Mrs. who can foil the wiles of men. McVey's farm chats are a great pleasure to me, though it is long since I actually ved on a farm.

Weil. I'm interested in hearing from

all the sisters (and the brothers, too) who write such homey letters for the RURAL WORLD, but I'm not going to talk to them all this time, or I'll wear out may welcome, and maybe not be let in HARRIET. next time. St. Louis County, Mo.

OILED AND PAINTED FLOORS.

If you have never had your kitchen son to pass without trying it. Any woman can do the work. Paint of any color can be bought already mixed, and the amount of labor saved is so great that we often wonder why there should be a kitchen floor in the land that is not paint-

Scrub the floor and let it dry; then give it two coats of paint, allowing each coat plenty of time to dry. A little Japan dryer added to the paint will hasten the drying, which is important when one needs to use the room all the time. It is usually better to do the painting in the evening after the supper dishes are washed, and leave the doors and windows open. If not quite dry in the morning and you cannot cook breakfast in some other room, lay boards where you walk the most to keep it from being tracked. If you prefer an oiled floor to a painted one, get a gallon of linseed oil, heat a quart of it until it is almost boiling hot, and apply it with a clean paint brush. Two coats are usually needed.

The care of a painted or oiled floor is important if you would keep them in the best condition. Mop the floor once week, using a suds made by adding a tablespoonful of pearline to two gallons of soft water, rinse it with clear water and wipe it dry. It is never necessary to use a scrub brush, and the water should not be hot. Try it, tired housekeepers, and see how much your labo will be lessened.—Kansas Housekeeper. nuch your labor

HIS REVENGE.

who is forbidden to speak the table, had his revenge the other day. As dinner began he was uneasy, and finally said:

"Ma, can't I speak just one word?" "You know the rule, Arthur,

"Not one word?" "No. Arthur, not until your father

finishes the paper."

Arthur subsided until the paper was finished, when he was asked what he wished to say.

"Oh, nothing! Only Nora put the cus-tards outside the window to cool, and

the cat has been eating them up!"-Ex.

STRAWBERRY CUSTARD.-Make plain boiled custard with six eggs (omitting the whites of two) one small cup white sugar, a pinch of sait, one quart rich milk and one teaspoonful lemon ex-tract. Put a layer of strawberries in the bottom of a glass dish, sprinkle with sugar and cover with a layer of the cus-tard, then more strawberries, and finish with the remainder of the custard. Whisk the whites of the eggs to a stiff froth with two tablespoons powdered sugar, and spread over the top just before serving. do not put together until just before time

RHUBARB JAM WITH GINGER .- Cut the stalks into short lengths, and heat up gradually till the juice flows, using no water. Allow pound for pound of sugar and fruit. Stir. and cook till thick and copy. To each pound of fruit allow a easpoonful of ground ginger wet up with a little water and made smooth so it will not lump. Add to the jam, boil up, put

into glasses and cover when cold.
FRENCH TOAST.—Beat one egg in a shallow dish, add a teaspoonful of sugar, a pinch of salt and one cupful of milk; oak six slices of stale bread in the custard, drain and brown them on each side lightly on a dish. Serve at once



The popular idea expressed in the phrase, "the art of self-defense," shows the opinion that the chief enemies a man has to defend himself from are visible and external. But the real danger of every man is from minute and often inand external. But the real danger of every man is from minute and often invisible foes. In the air we breathe and the water we drink are countless minute organisms leagued against the health of the body.

The one defense against these enemies The one derense against these enemies is to keep the blood pure. Dr. Pierce's Golden Medical Discovery thoroughly purifies the blood, removing poisonous substances and accretions. When the blood is pure there is no harborage for the germs of disease which find a lodging only when the blood is impure and corrunt.

or your 'Golden Medical Discovery' one of the best medicines on the face of the earth," writes Mr. Wm. Floeter, of Redoak, Montgomery Co. Jowa. "While in the southwest, three years ago, I got poisoned with poison by. The poison settled is my blood and the horrors I suffered cannot be told in words. I thought I would go crasy, I tried different kinds of medicine, tried different kinds of medicine, tried different sinds of medicine, tried different kinds of medicine, tried different kinds of medicine, tried different sinds of medicine, tried different kinds of medicine, tried different kinds of medicine, tried different finds of medicine, tried different finds of medicine, tried different kinds of medicine different kinds

Poultry Yard.

A REMEDY FOR ROUP

Editor RURAL WORLD: If Mrs. S. B. Lewis will try Cushman's Roup Specifishe will find it will cure every time.

have tried every remedy I ever hear going to be a tramp again as soon as suggested or saw advertised, and it is the only thing that I ever saw that did the least bit of good. FRANK SMILEY. Lincoln Co., Mo.

NOTES FROM ORCHARD FARM POULTRY YARDS.

Editor RURAL WORLD: The hatching eason is over at Orchard Farm. About 400 promising Light Brahmas and White Leghorns are clamoring for feed morn-ing, noon and night. In the meantime they are chasing bugs and worms out among the fruit trees.

I like to hatch chickens early before the hot weather. If it is the "early bird that catches the worm," it is the early hatched pullet that "lays the golden egg." i. e., the egg that sells for the mor

gets the start. It adds pleasure to the business and dollars to the pocketh Select one or more varieties according to your idea of what is most desirable. Study to improve their good qualities. Weed out the poor specimens.

To-day I have thoroughly whitewashed washing with lime and carbolic acid. I painted perches and cracks with a liquid lice killer. "Eternal vigilance" is not only the price of liberty, it is one of the es-sentials in the poultry business. Henry Co., Ia. MRS. H. M. CROSBIE.

CHICKEN GAPS

coosting time, place affected chicks in a large basket (basket is preferred be-cause of its perforated bottom), having previously provided a shovelful of fire coals and with a few tobacco stems or leaf tobacco placed thereon. loose covering of some sort over the top of the basket to retain the smoke. Now hold the basket of chicks over the tobacco smoke until they are thoroughly (drunk, after which place them quietly to bed; next morning you will discover this to be a "sure cure." mother treat her chicks in this m for 25 years without a failure. In high altitude here chicks are not trout

Our better half has been interested in the incubator correspondence. Now let us hear from some of the sheep men, who used the sheep shearing machine. Our experience may be related later when I have heard fully from the manufactu

Miller Co., Mo.

PRESERVING EGGS WITH WATER GLASS

A subscriber asks for information retheir wholesale houses.

We repeat what was published in these olumns a year ago: Of twenty German methods of preserv-

effective are coating the eggs with vase-line, preserving them in lime water and preserving them in water glass. There piercing the shell with a strong needle.

This objection having been conceded, the water glass method heads the list, as great deal of time, and treating them with lime water is apt to give them a disagreeable odor. In most packed eggs the yolk, sooner or later, begins to settle on fowls which pass muster as Brahmas are one side and the egg at once begins to the result of a cross employed to increase depreciate. This does not happen when one side and the egg at once begins to depreciate. This does not happen when water glass is used, and the eggs retain a some of the judges affect." surprising freshness. In one test it was found that a 10 per cent solution glass preserved the eggs so effectually that at the end of three and a half months eggs that were packed on Augus lst appeared perfectly fresh. A gallon of water glass, which will cost fifty cents, will make enough solution to preserve

THE BRAHMA.

Of the Brahma, 30 years ago, Miss Watts, then a recognized English breeder,

"I think all who keep Brahmas will agree with me in giving them a high place among our useful poultry. They are large, and put on flesh readily; they are good layers, good sitters, and good mothers; they are also very hardy, apt at keeping themselves in good condition and, under the unfavorable circumstances of dirty weather, or of living much among houses, they decidedly keep up a cleanly, tidy appearance better than any other kind I know. The chickens are hardy and easy to rear; I very seldom lose any, and I have noticed that they are more clever in the treatment of them selves when they are ill than other fowls; when they get out of order, they will generally fast until eating is no longer injurious. I should like to know if you have noticed this peculiarity in the Brahma. I believe I am prejudiced in their favor, but it is from experience of their merits perhaps; no. not exactly prejudiced, but convinced. I was amongst the first to import them rather largely, and after keeping them just over seven years I would not give them up for any other variety that I have tried.

"The worst accusation their enemies an advance against them is, that no one knows their origin; but this is applito Dorkings, Spanish, Polands and all the other kinds which have been brought to perfection by careful breeding, working on good originals. All we have in England are descended from fowls imported from the United States, and the pest account of them is, that a saligor ported from the United States, and the best account of them is, that a sailor (rather vague certainly) appeared in an American town (Boston or New York) with a new kind of fowl for sale, and that a pair bought from him were the parents of all the Brahmas. Uncertain as this appears, the accounts of those who pretend to trace their origin as crossbred fowls is, at least, equally so, and I believe we may just act towards the Brahmas as we do with regard to Dorkings

BRYMER-BAUMAN DAVIS-CHAMBERS ANCHOR

ATLANTI BROGELY LEWETT TLOTER.

UNION SOUTHER SHIPMAN COLLIER MISSOURI SOUTHERN JOHN T. LEWIS & RECO CO MORLEY

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and this is the unanimous verdict of its more than half a million readers. It is BEYOND ALL COMPARISON, the biggest, best and cheapes national news and family lournal published in America. It is STRICT LY REPUBLICAN in politics, but it is above all A NEWSPAPER, angives ALL. THE NEWS promptly, accurately and impartially. IT INDISPENSABLE to the Farmer, Merchant or Professional man who desires to keep thoroughly posted, but has not the time to read a larged daily paper, while its great variety of well-selected reading matter makes it an INVALUABLE HOME AND FAMILY PAPER.

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and other fowls, and be satisfied to possess a first-rate useful kind, although we may be unable to trace its genealogical

tree back to the roof. "Whatever may be their origin, I find them distinct in their characteristics have found them true to their points generation after generation, in all the garding water glass as a preservative for years that I have kept them. The pea eggs. The substance is known to chemists as sodium silicate. It can be obtained from druggists, who, if they do all that I have bred. Their habits are ot have it in stock, can obtain it from very unlike the Cochins. Although docide they are much less inert; they lay a larg er number of eggs, and sit less frequently.

Many of my hens only wish to sit once a
year; a few, oftener than that, perhaps

ing eggs the three which proved the most twice or thrice; but never at the end of each small batch of eggs, as I find (my equal favorites, almost) the Cochins do.
"The division of light and dark Brah

BROILERS.

reported that large numbers late fall chickens are grown in some sections, fattened and killed to be put in old storage to be sold as spring broiler out the time that the enterprisis try keeper with incubators and a brooder house is able to offer those that he had hatched out in the winter, says the Mass "Ploughman." The chicken that has been in cold storage was often rather infor present day fanciers to think of. She ferior when put in, and not too well fattened, and the long keeping has not improved the flavor, but has had a tend-ency to make it almost tasteless, but it costs less than the genuine spring broiler and helps to keep the price down. It i like the cold-storage egg, not quite as good as the fresh article, but near enough like it to be very often sold as fresh. It cannot be called an imitation, but it is a

fraud when sold for what it might have

been six months ago but is not now,

"FINE FEATHERS do not make fine birds," but our fancy poultry raisers breed for feather rather than meat and eggs. If this is not so, why is it that the mixed breed or dunghill fowls fill the coops and crates on the poultry market? If the fancy breeds are too expensive for the meat market they are certainly bred for fine feathers. The fine feathered birds are not to be despised as there are sev-eral breeds of good egg and meat pro-ducing fowls among the fancy chickens, but we could not refrain from saying a good word for the onery old biddy that widow's luxuries and on rare occasions finds her way to the "Guard" man's plate -Centralia, Mo., Guard.

POULTRY.

B. Turkeys, B. Langshans, Elmhurst Poultry Vards, Wellsville, Mo., Mrs. M. L. Singleton EGGS From B. P. Books, \$1.50 per 15.
Miss Anna Anderson, Monett, Mo.

HITE ROCKS exclusively; eggs, \$1.50 per 15. ROBT. B. HUME, Florissent, Mo.

WANTED 1000 Fox Cubs always in the market. R. G. Mason, Kirksville, Mo.

E665 B. P. R. Eggs, \$1,00 per 15; \$1.50 per 30 A. E. PHILLIPS, Aviston, Ill BUFF ROCKS S. L. Wyandottes and S. S. Hamburgs. Good game, try J. E. HAYNES. Ames, Ill.

Arred Ply. Rocks, S. L. Wyandose H. T. REED, CAMP POINT, ILL.

Eggs. Eggs, nothing but eggs. Fresh and fertil from the best of Barred Ply. Rocks and Pekin Ducks pen No. 1, 25; pen No. 2, 21,50; ducks 21 per setting Mrs. G. F. TRESCOTY, WINFIELD, Mo.

Barred and Buff Rocks. Pure Hawkins blood Eggs, \$5,00 per 15, \$3,00 per 30, from prise winners. Mr and Mrs. M. M. SMITH. Farmersville, Illinois. 00 BUYS 100 EGGS. \$1.50 one sitting. \$2, 10 Bronze Turkeys eggs, Either Brown or White Leghorn.
Barred or White P. Rocks, or Black Minorcs. Fancy stock for sale. Circular free.

E. W. GEER, Farmington, Mo.

Eggs, Eggs For Sale. rred Rocks are up to date in color, shape ring qualities, which I have achieved by breeding of Barred Plymouth Rocks ex-y for over 30 years. Per setting of 15 eggs, C. C. ALEXANDER, Fulton, Mo.

Duroc-Jerseys and W. P. Rocks Young stock after Sept. 1st. Eggs for hatching, \$1 per 15 or \$2 per 30. Address, R. S. Thomas, R. F. D. No. 4. Carthage, Mo.

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Eggs from at birds in most popular or profitable

lasses vis. L. S.; B. J.; B. P. R.; W. W.; B. M.

V. and B. L.; G. B. Bants; P. D. and M. B. T.

Eggs! From exhibition matings \$1.35 per 13;

2.40 per 30; out of standard breeders fie per 13,

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EGGS FOR HATCHING i prize winning Mammoth Bronse Turkeys: 10 old tom 30 lbs.; hens 20 to 25 lbs. Engrs 21.00 45.00 per 30. B. F. Kocks and Buff Cochins, 921% to 94%; eggs 21 per 10, so per 100. Mrs. John L. Usalser, Charleston, III

Silver- aced Wyandottes. A few more good cockerels for sale at from \$3.00 \$8.00 each. EGGs—EGG per setting from yards saded by 1st, 2d, and 3d premium cockerels at Mo. late Show and 1st premium cock at Sectials Show. E. E. CODDING, Sedalla, Mo.

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Choice Lot of Sept. and Oct. Gilts to breed in May. A few males same age. Sold ou on other ages. S. G. Richards, Sturgeon, Mo.

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LARGE ENGLISH BERKSHIRES—48 bnys H. P. R. Chickens; White Turkeys. GEO. W. McINTOSE, Monett, Mo.

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Walnut Valley Farm Herd pigs and Jersey Cattle for sale. Black Langahar Eggs \$1.50 for 15. Ernest W. Wallen, Monett. Mo

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Sreaders of the best strains of Poland-Chins
begs. Registered Jersey eastle and Plymouth
Took chicks. Young stock for sale at all times.

POLAND CHINAS, Gilt edge and individual merit some bined. R. L. OBGAN, Carmi, White Co., Ill.

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DUROC-JERSEYS and W. P. ROCKS.

DUROC-JERSEYS—20 boars ready for service Gilts and old sows bred; registered stock. N. B. SAWYEB. Cherryvale, Kas. MAPLE HILL HERD

C JERSEY HOGS. I have a grand oring pigs to offer the trade; good indi-and breeding second to none HARRY SNEED, Smithon, Mo. ROSE HILL Herd of Duroe Jersey

Hogs. Early pigs now ready to ship. A few choice bred Gilts and six good lengthy boars ready for service, for sale. S. Y. Thornton. Blackwater. Mo.

Duroc Jersey and Berkshire Hogs! Extra ing. Batisfaction guaranteed or you may return at my expense. 8. C. WAGENER, Pana, III.

FOR SALE a nice lot of fall pigs, sired by Mis-perfection, dams are Look Me Over and B. U. S. breeding. Many for setting from heat strains of

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The Pig Pen.

LIFE OF THE CHOLERA GERM.

How long will the germ of hog cholera ve? This is a question that is troubling a good many people, for on its answer ings thoroughly wet with coal oil.

Even with the most thorough treatment it requires time and patience to clean a better of horde now affected by how hinges not only the safety of herds that are yet to be, perhaps a year hence, but the places of herds now affected by hose cholera, says the "Farmers' Review." It is the belief of some of our best breeders that the germs will remain vigorous for at least two years after the pensonic infected have been emptied. Cases are reported where froch hogs have been brought into styes that had been empty nearly two years and where the nogs came down with cholera within a few days of entrance. This especially affects the showing of hogs at fairs. If there have been cholera-sick hogs in any of the pens the germs are likely to temain active till the next year. It is therefore necessary that the men having fairs in charge see that all pens are disinfected each year, to eliminate the possible presence of cholera germs.

Mo.

STOMACH WORMS IN LAMBS.

A Paper by J. E. Muir. Read Before the Mo. Sheep Breeders' Meeting at Fay-ette, Mo.

There has been much written on this aubject. I have had considerable experience with somach worms in any of the pens the germs are likely to temain active till the next year. It is therefore necessary that the men having fairs in charge see that all pens are disinfected each year, to eliminate the possible presence of cholera germs.

HOG CHOLERA REMEDY.

Hog or only the most thorough treatment to requires time and patience to clean a drove which has become badly infested, but it must be done if the hogs are to be kept in a thriving condition. It is not does from the logs of the larger part of the lice, but that is not sufficient, for where there are even a few eggs left in the ears or under the jows of a single animal the pest will become as bad as subject. I have had considerable experience with somach worms in lambs, and I have been troubled ever are allowed to run with the others. The only remedy I knew. I gave it very inches, and any which are purchased should have been the hogs and any which are purchased should have been the presence with parasites in lambs.

In 1887 I lost 27 out of 40. This

Dr. Salmon recommends the use of the ollowing for hog cholera:

lood charcoal . dium chloride odium bicarbonate 2
odium hyposulphite 2
odium sulphate 1
ntimony sulphide (black antimony). 1
These ingredients should be completely

ulverized and thoroughly mixed. The dose of this mixture is a large onful for each 200 pounds weight

ablespoonful for each 200 pounds weight of hogs to be treated, and it should be given only once a day. He also says:

Hogs are fond of this mixture; it in creases their appetite, and when they once taste of food with which it has been mixed they will eat it though nothing ise would tempt them.

Animals that are very sick and that will not come to the feed should be irenched with the medicine shaken up with water. Great care should be exerised in drenching hogs or they will be uffocated. Do not turn the hog on its back to drench it, but pull the cheek away from the teeth so as to form a pouch into which the medicine may be slowly poured. It will flow from the cheek into the mouth, and when the hog inds out what it is it will stop squealing and swallow. A very easy method is to cut off the toe of an old shoe, insert the cut end into the hog's mouth, and pour the medicine into the shoe. In many of our experiments hogs which were so sick that they would eat nothing have comnenced to eat very soon after getting a dose of the remedy, and have steadily im-proved until they appeared perfectly well. This is particularly the case when the

isease is hog cholera. This medicine may also be used as a preventive of these diseases, and for this purpose should be put in the feed of the whole herd. Care should, of course, be bserved to see that each animal receives

his proper share.
With these, as with all other dise prevention is much better than treat-ment. If cholera is known to be in the neighborhood the hogs should be confined in a small lot in which there is no stag-ant water, and where they will be protected from excessive heat or cold. They hould be ted well, principally with bran, shorts, and other soft feeds, in which should be mixed a daily dose of the mix-ture described above. No one who has ecently visited a place where the disse exists should be allowed to go near he lot. Care should be taken that the logs have no access to any ground which eccives drainage from an infected lo-

hould be quarantined at least a 13onth spectre being put with the drove.

Should the disease make its appearance in a drove, all the animals which appear to be still unaffected should at nce be separated from the sick laced in a pen as far away as poss Should the disease appear among those which have been moved, the sound animals should be moved to still another place. It is of little use to move the sick, as the lot in which they have been kept is thoroughly infected. Different eders should have care of the sick and the well for fear of carrying the contago as a bit of manure no larger than a head might easily be carried on the foot from the sick to the pen where the

ality. Any animals which are purchased

The carcasses of any animals which die from the disease should be burned im-Ble 2 HERDS Durce Jersey and Chester the germs of the disease may retain their disease may retain their the germs of the disease may retain their their disease may retain their their disease may retain their their disease may retain their disease J. E. HAYNES, Ames, Ill. and if brought to the surface by dogs or

healthy animals are kept, and so spread

so large that they can be seen easily, and their presence may therefore be known their presence may therefore be known J. E. Haynes, Esq. Dear Sir: Yours their presence may therefore be known before they become very abundant. They are liable to appear at any season of the year, and they thrive on hogs of any age or condition. They are found in and behind the ears, back of the shoulders, and white metal for money. I think I can be the shoulders, and white metal for money. I think I can be the shoulders, and white metal for money. and in the creases on the lower part of the ham more frequently than elsewhere; if those places are free from them there is little danger that they exist on other parts of the animal. Coal oil is sure death to every louse it touches, but does not always kill the eggs, and must be used and some make you sales if I can not furnish them. Yours for trade.'"

Mr. Haynes breeds Chester White and to every louse it touches, but does not always kill the eggs, and must be used.

LIFE.

LIFE.

and white metal for money. I think I can home spinning could be carried on by the have tried home-made and prohousewife during the long winter months. Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long winter months. Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long winter months. Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long winter months. Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long winter months. Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long winter months.

Sheep then were considered absolutely with both, but on account of the handlenger than the kind of dip to use and the way to use it. We have tried home-made and prohousewife during the long without the flock.

It was after the home spinning could be carried on by the kind of dip to use and the way to use it. We have the kind of dip to use and the way to use it. We have tried hom always kill the eggs, and must be used with caution to prevent its blistering the

at the end of the second week. If the work is thoroughly done, three spraying will be sufficient. If a spray pump is n available, the hoge should be rubbed with a mixture containing two parts of lard oil to one of coal oil, repeating twice at intervals of a week. The sleeping places hould be thoroughly cleaned, the bed ding burned, and the inside of the build-

SWINE NOTES.

Salt and ashes aid digestion in swine. A clear place for swine is a prime ne

There are many good plants for swine asture. One litter a year is enough for the oung sow,

Lice rarely infect hogs that have plenty The boar should not be of big, long

xtremities and small body.

The cleaner the feed and the feeding places the better the pork made. A healthy hog's stomach is as regular clockwork in demanding food.

ood consumed than any other animal In the keeping of swine a degree of s is always attended with profit. Stick to the Jersey cattle and Duroc Jersey swine and you will win out O. K. A good pasture of a few acres will prove the best paying acres on the farm. Young pigs can not do well when they are forced to sleep in wet and cold beds. pasture for the pigs, with abundant clean water.

Hogs will fatten faster if confined in rather close quarters and fed often. Brood sows require food, rich in the

elements of bones and muscle, corn is not suitable as it contains an excess of

contagious that it is a safe plan to separate a sick pig out the first time it is noticed. Hogs are nearer self-sustaining, and will do more foraging than any animal,

and there is less labor in preparing fcod farrowing and feed so their bowels will be free and their systems in a lax, cool

All the time filthy conditions should be eradicated and good sanitation provided if you would have your herd in good, althy condition.

The hog that stands square and strong pon his teet should always be chosen upon his teet should always be chosen for a breeder, in preference to a gaunty, weak-kneed animal. Try giving the little pigs sifted ground

and middlings, moistened to a crum-tate. Give only a little at a time, never allowing it to become

With irritable sows it is always best to leave them undisturbed, even without food, for a day at least after iarrowing, as any slight excitement may prove fata to the young .- Jersey Hustler

PIG PEN POINTERS.

E. H. RODGERS, Bunceton, Mo., breedof Poland-China hogs, Shropshire sheep and Shorthorn cattle, writes us that he has six fall boars left, and they are good ones; also a few gilts bred to Missouri Black Chief 2d. He has 60 spring pigs ired by four different boars, Mr. Roc ought recently a straight Cruicksnani bull for use in his herd.

EARNEST W. WALLEN, Monett, Mo.

writes: "My hogs are doing well and are enjoying separated milk, mill feed and pasture with corn for a cake once a day The most of my spring pigs are sired by Wallen's Black U. S., as good a Black U. S. hog, I think, as there is living. All patrons are invited to come and see for themselves. I have purchased from Mr. Thos. M. Allen a half interest in a Chief

thoroughly disinfected by sprinkling and should not be used again ior at least six weeks. The disease for setting from best strains of six sho breading stock by progressive farmers is so fatal and so difficult to treat such that too much care cannot be taken to prevent its introduction or spread.

FARMS.

THE SUMMERS, Houtsville, Randolph, Co., Mo.

FARMS.

THE HOG LOUSE.—The hog louse is the only insect which causes much trouble in raising hogs, and when it once becomes fixed. The control of the

The poet's exclamation: "O Life! I feel out of fashion, and costly machinery spring dipping which are non-poisonous, thee bounding in my leins," is a joyous was erected to do all this work for the lambe will get more or less off the with caution to prevent its blistering the with caution to prevent its blistering the skin of the hog. When a large drove is to be treated, the work can be done very quickly by using a spray pump having an attachment for mixing the oil and water and the pump should be set so that it will use about five parts of water to one part of oil. When such a mixture is thrown over the hogs in a fine spray, only a little of the oil is used to cover the whole of the prevent its blistering the dead of all this work for the skin of the hog. When a large drove is show at tach rarely or never make it, in honesty to themselves, are among the most unfortunate. They do not us gave up nearly all other branches of farming and tried to get rich in raising depend on the number one has to dip. The method of dipping will depend on the number one has to dip. For aman who owns the sheep is the man who owns the sheep is the most of dipping will depend on the number one has to dip. For a small flock a vat of pine lumber can be work can be done very dates after the dipping. But all and the proper use of same.

Admitting that fat sheep are the most to bim.

Admitting that fat sheep are the most to directions before condemning it as in directions before condemning it as a strength of the proper use of same.

Admitting that fat sheep are the most of dispring mature sheep killed through ignorance of the proper use of same.

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The Shepherd.

MISSOURI SHEEP BREEDERS' ASSO-Norman J. Colman, Precident, 1214 Chemical Building, St. Louis, Mo. L. E. Shattuck, Secretary, Stanberry,

black scours.

I do not believe the twisted stomach

worm causes black scours. I had one lamb in 1897 that had the strotches. It would stretch out as far as it could, tuen it would lie down and when it was up it fresh meat is wanted than during the

ewes for show. In July one of them became affected with the twisted stomach worm. I gave her one dose of gasoline a day for two weeks. She was getting better when one night she fell into a ditch on her back and died. When I found her she was still warm. I held a post-mor-tem examination and to my great surprise, I found, after giving her so much gasoline the twisted storach worms in little dish of part of her stomach, put turpentine on them. It seemed to have little effect on them. I made another dish of the same stomach and put some worms in it and poured gasoline on them. The gasoline turned them a little white and it seemed to make them sick. I then made another dish and put a few worms in it and poured crude carbolic

The ewe's lungs and first stomach were

of August I saw signs of disease and I went to work at once. I found eight lambs in a very bad shape. I took them to my barn and began to treat them by giving two doses a day for six days, then one dose a day for two weeks. The ambs were so weak they could not stand on their feet over five or ten minutes at ne time, and were humped in their back. All these lambs got well and are looking ne to-day. You could not tell they had ever been sick. I had a two-year-old ewe that was almost a hopeless case. I thought I would experiment on her. I would either kill or cure her. I dosed her on gasoline three times a day for about a week, then twice a day for two weeks or more. She got well, although I turned

As to grubs in the head, I believe sheep in good health can dislodge them and that diseased sheep most always have grubs in the head.

was erected to do all this work for the as the lambs will get more or less off the

much easier to kill a few lice on a few I have more faith in gasoline than in animals than to clean a thoroughly inany other that I know, provided it is fested herd. sufficient to give a dose a day for three days and skip three days when a lamb is in the first stage of the disease, but after the disease has run on for some time I think it takes more. I give two doses a day, one in the morning and one in the evening, always giving on an empty stomach and keeping water from them for two hours afterwards. I burned the lambs I lost in 1897. While burning the intestines would burst from which I would take worms that were from one to one and a half feet long. They looked like tape worms. I think now that tape worms were the cause of the death of my lambs and that the tape worm causes

reat masses; they were about an inch o an inch and a half long. I made a some of these worms in it and poured acid on them; it killed them instantly.

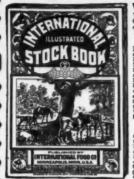
as healthy, seemingly, as any sheep I had ever butchered. My judgment is that any medicine strong enough to kill the worms instantly will kill the sheep also.

In 1900 I began using the worm powder in May, keeping it before my sheep all the time in salt. However, during the month her out to die. I feel safe in saying that I gave her two or three quarts of gase-the results.

FARMS AT BARGAINS.

Partition sale of farms, in the closes and best pastice of the county, all fine improved farms, with third states from Elands in a fine spray, only a little of the county, all fine improved farms, with third greater, best churches and selections from Elands from Elands in a fine spray only a little of the county, all fine improved farms, with third greater, best churches and selections from Elands from Elands in a fine spray in a fine spray only a little of the county, all fine improved farms, with third greater, and then miles from Elands in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray, only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hogs in a fine spray only a little of the day, and to retire not over the hog in the whole spray in the whole spraying in the verins. A medicine that has made on the whole spray in the verins. A medicine that has made on the verins. A medicine that has made on the verins. A medicine that ha

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THIS BOOK CONTAINS 183 FINE, LARGE, COLORED ENGRAVINGS OF HORSES, CATTLE, SHEEP, HOGS, POULTRY, ETC.

every boy should be brought up so that he can have the care of such animals. He will learn much about them that in later life will benefit him. The flock of sheep will not only pay for themselves directly in their wool and mutton, but they will indirectly benefit the land and crops. They are of inestimable value in the clover and grass pastures, and even in the orchard where their little feet will press down the grass roots so the soil will cling better to them. Under proper handling, it costs little to keep a small flock of sheep on the general farm, and they return enough to more than pay good interest on the investment and thing over in the shape of wages for the owner. Then the lambs and whether shipped to market or l

MUTTON IN WARM WEATHER.

would stretch the same way. I gave it a dozen doses of turpentine or more, and it got well.

In 1892 Let 15 out of % In 1892 Let. it got well.

In 1898 I lost 15 out of 25. In 1890 I lost and early in the morning slaughtered and hung up in the well if no ice is at six out of 24. In 1890 I lost two out of 25. hand. It is not so large but it can During the last two years I used a worm be used up before it will spoil. Some powder in salt very freely and some in feed. I think the worm powder did much a cool place where it will keep a short time. For threshing time no me In 1899 I was fitting a couple of yearling excel mutton, says the "Farmers' Guide." That is one will kill a good sized muttor and send three of the quarters to as many neighbors, neighbor number two killing and doing the same thing a day or two later with neighbors three and four following in turn. By this plan the meat can be kept fresh an indefinite length

> There was a great deal of prejudic against mutton at one time, but we are glad to say that it is passing away as the days go by. It is quite true that a bet-ter grade of mutton is found in moss localities, and farmers understand slaughtering better than they once did Much of the "sheepy taste" has gone from the mutton and some of the older people who once refused to eat mutto have wondered where it has gone to The "sheep taste" will not be found in well fed muttons which have beet butchered in a proper manner. It is not the wool that gives it the "sheepy taste" so much as the intestines or the gase rising from them. Removing the intes-tines soon after death is the best thing tines soon after death is the best thing to do. If the pelt can be removed quick ly it may be well to disembowel the mut ton after its removal, but if this canno be done in a hurry, disemboweling should be done at once and the pelting process done subsequently. times pour a pail of cold water in the trunk of the sheep, which cools the bowels and prevents the generation of gas until the sheep has been pelted. Again we dis embowel first and pelt afterward. depends on the help we have at the tim of butchering.

> It will pay to keep a small flock o sheep for home consumption if no othe motive were in view. By keeping a few for this purpose advantages will be dis covered that will cause an increase in the size of the flock until a large one is kept if the conditions of the farm are

the germs of the disease may retain their, vitality for months when in damp soll, and if brought to the surface by dogs or when the disease that the surface by dogs or the disease at any time. The lots where sick animals have been kept should be thoroughly disinfected by sprinking again for at least six weeks. The disease may retain their the six and am predistribution of the disease of the My opinion is that sheep affected with shepherd should specially bear in mind at without sheep. I do not mean that we have given up other branches of farmers are sheep after shearing will at once settle for scab the flock should have a second sheep after shearing will at once settle for scab the flock should have a second dipping about 10 days after the first, and of the be put into fresh quarters to prevent the fock each year until now most farmers are shepherds of pretty fair importance, says a writer in the "Michigan Farmer." There is no animal better suited to the general farmer's purposes than the sheep. Our early settlers raised a few sheep for their wool so that the home spinning could be carried on by the home spinn

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Dipping, washing or spraying live stock is essential for the cure of Scab, Mange, Itch, etc., and for killing and removing ticks, fleas, lice. etc. Lincoln Dip is com posed of nicotine, sulphur and valuable oils, but contains neither lime nor arsenic. It is effective but not poisonous or injurious. Write for literature upon treatment of stock for skin parasites.

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Cedar Lawn, E. H. Rodgers, Proprietor,

FINE BERKSHIRES

Of the best families at farmers' prices. Write for what you want, or what is better, come and inspect the stock W. H. KHR, Prairie du Rocher, Illinois. A YEARLING SHOW BOAR FOR SALE!

That will make a 700 lb, yearling and will show through all of the fairs this year. A few fall gilts that will do to show under one year and a fine lot of pigs now ready to ship. Come and inspect them. We will treat you right. HARRIS & MoMAHAN, Sunnyside Farm, Lamine, Mo.

ANGORA GOATS FOR SALE! I have for sale five or six double deck cars of goats, consisting of Recorded, High Class, Medium Class, Old Fashioned Goats, about one hundred head of Choice Young Bucks and also two double deck cars of fine Angora wethers, that are located thirty miles south of Kansas City. I can sell you any class of goats you may want at a reasonable price. Address W. T. MeINTIRE, Agent, Kansas City Stock Yards, Kansas City, Me.

A better device is a tank with one end sloping so that the sheep can nearly walk out after being tumbled in at the other end right side up. These tanks may be made of wood, or iron ones can be bought. Dimensions are eight and one-half feet long on top, four and one-half feet on bottoms, and eight to 10 inches wide at the bottom, about two feet wide at top, and four feet deep. Steps are put in the sloping end so that the sheep can wide at the bottom, about two feet wide at top, and four feet deep. Steps are put in the sloping end so that the sheep can help themselves out. To use this tank, beast," is a bit of ancient lore that every shepherd should specially bear in mind at shearing time, for there is no better opportunity to get rid of the external para-

tities is all right, but many a good lamb's growth has been ruined and many

SHROPSHIRE RAMS. all yearlings, for sale; also my stud ram for sale or trade for one as good, address L. G. JONES, Towards, Ill.

view, however.

The flock of sheep will not only pay

The flock of sheep will not only pay

The flock of sheep will not only pay

L. G. JONES, Towards, Ill., is offering

The Markets

WHEAT—Cash Market—Barely steady and a dull market, the milling demand very limited, and all offerings, even of choice, could not be sold. By sample, No. 2 red sold at 72%c this and 73%4674c E. side; No. 2 red on Levee at 73c, and carlots at 71673c, latter choice; No. 4 at 60c, 60c; no grade at 60c; No. 2 hard at 72c to 72%-673c (latter choice) for Kansas, 73c for Turkey. No. 3 hard quotable at 706 71%c. No. 5 white spring sold at 68c. CORN—Cash Market—Steady but a very moderate demand, mainly for shipment. By sample No. 2 sold at 42%c mainly del. E. side to 45%c this side; No. 3 at 42%c E. side; No. 2 yellow at 42%c this side; No. 2 white at 44c, and No. 3 white at 45%c del. side; Cash Market—Lower and dull at

OATS—Cash Market—Lower and dull at

ery small and market lower. No. 2 some left at 64%.
MILLFEED—Dull and heavy. There is all demand from either the East or South and offerings increasing notably from the West. Millfeed (hard winter) in large lks. E. side mill at 65c. A lot country aran in 160-lb. sks. sold this side at 65c. At mill bran sells at 70671c and ships at 70671c and ships at 70671c.

75c.

HAY—Nice timothy scarce and wanted, a car strictly choice bringnig \$14.50. Prairie is slom and clover dull. Current rates on trk. timothy \$13.50914 for choice, \$129 13 for No. 1, \$10.50911.50 for No. 2, \$25916 for No. 2, \$7 paririe \$11 for No. 1, \$9.50910.50 for No. 2, \$8.5099 for No. 2. Clover \$9912.

The following tab	and cash gr	range o ains: Close
Wheat— July69@1/4 b Sept67%@68 b	69@68%@% 68 @67%	68%@% 1 68%@% 1
Corn— July41% a Sept43@% a	41%@41% 43% @4 5	41½ b 43% a

Sept67%@68	D (93 (30178	907	149.78
Corn- July41% a Sept43@% a			341% 343		b
Oats- July27% Sept26%		6	?	28 : 26%	
	inge	R	ange		ange st Yr
Wheat- No. 2 red73	@78%	75	674		674
No. 3 red71 No. 4 winter.65	@73½ @70	65	@71		@70
No. 2 hard.72 No. 3 hard.71	@721% @71%	72 71	672		666 666
Corn-					

COTTON—Local spot quotations—Ordinary, 6 1-16c; good ordinary, 6 9-16c; low middling, 7 3-16c; middling, 7 13-16c; good middling, 8 5-16c; middling, 7 13-16c.

WOOL—Continues inactive and weak. The movement is moderately large, however, receipts being liberal, and nearly all are being sold on ærrival; and, considering the depressed feeling and comparatively low prices ruling at all other leading markets of the world, the situation here is very good and prices relatively high; besides there are ready buyers here continuously.

continuously.

Missouri and Illinois—Medium combing, 1846/16; medium clothing, 196/16/5; braid and low, 186/16/5; bury and clear mixed, 14 (1915; slight thurry, 124/6/18); hard burry, 10 (1916; slight fine, 126/14/26; semi-bright, 146/14/26; dark, 136/13/36; fine medium, 146/14/26; dark, 136/13/36; fine medium, 146/14/26; dark and sandy, 13 (1914/26; fine medium, 16/26; dark and sandy, 13 (1914/26; fine medium, 16/26; dark and sandy, 13 (1914/26; fine medium, 16/26; dark and sandy, 13 (1914/26; fine medium, 16/26/26; light fine, 126/14/26; fine medium, 196/12/26; light fine, 116/11/26; heavy fine, 36/9/36. Dakota and Western—Bright medium, 126/12/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 126/12/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 126/12/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 16/26/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 16/26/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 156/16/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 156/18/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 156/18/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 156/18/26; light fine, 126; heavy fine, 36/9/36. Cakto and Western—Bright medium, 156/18/26; light fine, 126/18/26; fine medium, 156/18/26; light fine, 126/18/26; fine medium, 156/18/26; light fine, 16/18/26; fine medium, 156/18/26; light fine, 126/18/26; light fine, 126/18/26; light fine, 126/18/26; light fine, 126/ ously. uri and Illinois—Medium combing.

BUTTER-Creamery firsts and seconds (near-by factory make) in liberal supply and selling slowly; while fancy Northerr sells fairly, but mainly in a retail way Other grades of tub stock steady. Pack-ing grade (lots in palls) in better request

Ing grade (lots in palls) in better requestion anything else.

Creamery—Extra, 18½@19c; firsts, 15½c; seconds, 14@14½c.

Country—Choice, 1lc; poor to fair, 7@10c; grease, 2@3½c.

Dairy—Extra, 14c; other grades less.

Ladle-packed—Extra, 13c; firsts, 12c. In a small way ½c per pound or more is charged over the foregoing quotations for tub

over the foregoing quotations for tub stock.

CHEESE—Jobbing: Twins, %c; singles, lec; Y. A., 10%c; long horns, 10%c; dalsies, 10%c; N. Y., 10c. Limburger, 10%g/Lc. Swiss, 18g/16c. Brick, 10%g/Lc. LiVE POULTRY—Chickens—Average receipts, hens 7c; roosters, old or staggy young, 3%c. Turkeys—Round 10ts 6%c. Ducks 56%c. Geese (top for full feathered 4c. Spring chickens selling by weight 16c per lb.; top price for fancy large; spring ducks 10c; spring geese 8c per lb.; pgleons 31 per dox; squabs 75c.

root 5c, bark of tree 2½c; blood 2½c; blue-flag 2c; skullcap leaves 5c; assafras bark 4c; wild ginger 4c. LINSEED OIL—Raw 4lc; boiled 42c; lc per gal, less in carload lots. COTTONSEED OIL—Summer yellow at 36c; white 37c; winter yellow 4lc, and white 42c. Sec; white 3fe; winter yenow white 42c. BROOM CORN—In fair demand and steady. Quotable per ton: Common at 340 steady. Quotable per ton; common at 345 fair at 360; choice short green brush to 350; fair at 360; choice short green brush

18 40. ES.—Choice bleached at \$15 per ton;
ther kinds from \$16 to \$14.

SR. Wrought from \$60; heavy cast \$40;
told \$16.

Wrought from \$60; heavy cast \$40;
told \$16.

The state \$160; and \$16.

The state \$160; and \$160;
told \$160; steel \$160;
told \$160; and \$160;
told \$160; and \$160;
told \$160;
tol

ce. SORGHUM-Poor to prime, 10c to 18c per

railon.

GRASS SEEDS—Some millet selling,
worth from 75c for poor up to \$1.19 for
rood. Hungarian nominal at 75c to \$1.

Yothing said of other seeds. Sales: Miltet—I car at 97c, 2 cars (to arrive) on p. t.,
sesides bids were submitted on some

15½ hands, extreme range... 90 15½ hands, bulk of sales... 95 16 to 16½ hands, extreme range.110 16 to 16½ hands, bulk of sales.120 ST. LOUIS NATIONAL STOCK YARDS.

MarketReport Furnished by Evans-Snider

Receipts for week ending June 8 were 15,563 cattle, 37,389 hogs and 27,319 sheep, against 13,153 cattle, 35,215 hogs and 16,100 sheep the previous week. As compared with corresponding week year ago, cattle increased 3,800, hogs 1,900, sheep 11,600. Re-

less.

RASPBERRIES—Black from Arkansas pounds average, \$5.00 to \$5.90; good shippunds at \$1.259(1.50) per 3-gal. case.

CHERRIES—Overplentiful, slow sale and easy in price. Consigned lots sour sold at \$1 to \$1.10 per 6-gallon case and at \$00 to \$6.00 per 1.450 pounds, \$5.30 to \$5.50; fair to medium shippung steers, 1.300 to 1.450 pounds, \$5.00 to \$6.00 to \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 per haif-bushel basket. Homegrown sold mainly to preserving companies at \$6.00 to \$6.50; fair to medium shippung steers, 1,300 to 1,450 pounds, \$5.00 to \$5.00 pounds and upwards, good quality, at \$5.00 to \$5.00 pounds and the top was \$6.00 for 1,447 pound offerings. Steers, 1,300 to 1,550 pounds average, full range, \$1.00 to \$1.50 pounds \$6.00 for 1,447 pound offerings. Steers, 1,300 to 1,550 pounds average, full range, \$1.00 to \$1.50 pounds \$6.00 to \$6.50 pounds and the top was \$6.00 for 1,447 pound offerings. Steers, 1,300 to 1,550 pounds average, full range, \$1.00 to \$1.50 pounds \$6.00 to \$6.50 pounds \$6.00 to \$6.50 pounds, \$5.00 to \$6.50 pounds, \$5.00 to \$6.50 pounds, \$6.00 to \$6.50 pounds, \$6.00 to \$6.50 pounds, \$6.00 to \$6.50 pounds \$6.00 to \$6.50 pounds \$6.00 to \$6.50 pounds \$6.00 to \$6.50 pounds and upwards, good quality, at \$6.00 to \$6.50 pounds and upwards, good quality, at \$6.00 to \$6.50 pounds and the top was \$6.00 for 1,447 pound offerings. Steers, 1,300 to 1,550 pounds and the top was \$6.00 for 1,447 pound offerings. Ste

thearlings at 20035c; dry stock, fallen, etc., 1980 per th.

200. 1980 Canning cows sell at \$1.25 to \$2.85. Veui calves, full range, 43.25 to \$6.35 per 1.50 pounds, bulk at \$5.50 to \$6.00 per 150 pounds. Heretics and yearlings sold at pounds. Heretics and yearlings sold at \$2.50 to \$4.40. per 100 pounds, with the bulk at \$2.75 to \$3.40. Bulls, full range, \$4.50 to \$4.50, bulk of sales \$3.25 to \$4.00. Stockerbulls sold at \$3.00 to \$4.00, the bulk at \$3.10 to \$5.90. During the week the milkers sold at a full range of \$30.00 to \$46.00 per cow and calf, the bulk of sales being at \$25.50 to \$38.00.

SOUTHERN CATTLE-Receipts for SOUTHERN CATTLE—Receipts for week amounted to 28 cars, which is about 29 cars less than last, and 35 less than corresponding week your ago. Closing conditions of the trade are strong, with good to best steers ide lusher than week ago, while cow and hefter butcher cattle declined 5 to 10c. The quality not 110 cattle in the southern division tris week was about the same as on last, with the greater pertion of the receipts running to grassers. The veal calf market figures about \$1.00 per head lower. All classes of beef steers are fully as high now as any time during the season.

worth from 18c for 1900 mil to 18 10 fet 18c for 18c for 1900 mil to 18c for 1

have had more or less rain, and at a time to prevent imminent diminution in yield, and many others have not. In various localities some injury has been done by Hessian files or other pests, but suc

damage has not been general.

Commenting upon matters relative to
the crop the Secretary says: "All recent figures received indicate that the presen Kansas winter wheat acreage is a very considerable per cent larger than has at any previous time been officially estimated, and place it close to, if not some increased 3,800, hogs 1,900, sheep 11,600. Receipts at the four principal markets for week in round numbers were 119,300 cattle, 352,400 hogs and 120,000 sheep, against 116,300 cattle, 356,400 hogs and 123,000 sheep the corresponding week, and 89,800 cattle, 347,700 hogs and 106,900 sheep the corresponding week year ago.

CATTLE—Receipts in native division were fairly liberal and the quality ruled sense in the country's commercial and financial affairs, Kansas and her wheat situation are always profits themes for the enterprising sense in more and the translation of the enterprising sense in the country's commercial and financial affairs, Kansas and her wheat situation are always profits themes for the enterprising sense in the country's commercial and financial affairs. CATTLE—Receipts in native division were fairly liberal and the quality ruled from common to good, best cattle on sale bringing \$6.90. The demand for all classes of fat cattle ruled strong, and the market throughout the week was in a were satisfactory condition; prices closed very satisfactory condition; prices closed on the later than a week ago on the collection of Kansas wheat. Since the are Spring chickens selling by weight life per lb; top price for fancy large; spring ducks 10c; spring geese & per lb.; top price for fancy large; spring ducks 10c; spring geese & per lb.; top price for fancy large; spring ducks 10c; spring geese & per lb.; top price for fancy large; spring ducks 10c; spring geese & per lb.; top price for fancy large; spring ducks 10c; spring geese & per lb.; top price for fancy large; spring ducks 10c; spring ducks 10c; spring geese & per lb.; top price for fancy large; large for large and fancy 10c; large and large and fancy 10c; large and large and fancy 10c; large and 10c; crop is entirely garnered; likewise a con-tinuation of the alarming stories about the probability of losing much of the wheat by lack of men for its gathering, which have been so staple for several weeks. Yet, in spite of unkind, heedless, inconsiderate and indefensible fictions to the contrary, Kansas seems on the eve of contrary, Kansas seems on the eve of harvesting a prodigious total of high-grade winter wheat; a total such as some other very creditable agricultural states could not reach by aggregating their product of a century, and not an acre of any value in all the millions will fail of reaping."

PROCEEDINGS.

Editor RURAL WORLD: At the recent meeting of the Executive Committee of the State Board of Agriculture, held in New Haven, Frankin Co., Mo., besides for lack of moisture. Wire, cut and grub the usual business of auditing accounts are taking advantage of the low the usual business of auditing accounts and making requisitions, the following business was transacted, after which the committee adjourned to meet in St. Louis at the call of the president.

SOUTHERN CATTLE AFFAIRS.—
Wool has mostly been sold for 16 to 18%

Upon the request of E. M. Lawder asking for a permit to have his farm, situated in Audrain County, near the city of Mexico, placed in quarantine for the purpose of feeding southern cattle, it was ordered by the Board that the secretary be author-ized to grant the permit under the fol-lowing restrictions: The said E. M. Law-der shall bear all expense occasioned by the granting of the permit; the land to be used for the above purpose to be platted and a copy of the plat furnished the secretary; also the premises to be examined by the State Veterinarian and the chutes MISSOURI WEAL for loading and unloading the cattle, the fencing of the pastures and the disinfec-tion of the cars together with the loading

able to hold somewhere between sixty and eighty meetings during the coming season and will appreciate it if the members of ries are ripening. A good crop of blackthe Board will take an interest in locating the meetings in their respective districts GEO. B. ELLIS, Secretary.

SUMMER DAYS AT SEVEN PINES

Editor RURAL WORLD: Never has there been so great destruction of wheat from Hessian fly as this spring here has witnessed. The work of the insect pest began to be very evident along about May 15 to 20. I examined many fields and found the fly at work in all of them. I found some stalks of wheat literally bursting with larvae, and within a space of two inches on one stalk I found by actual count 35 active larvae. So vast a number of Hessians would bring down the American flag itself. Hundreds of acres of wheat have been plowed up and the land, devoted to corn. From this great change in products the land will e greatly benefited by the plowing under of the wheat. So there is some redeem among our farmers to discontinue wheat as the Hessian fly has become a perpetual of danger to the product. The

the elements of success in the attacks on spring and winter wheat.

Wednesday, June 5, was a day of pheon spring and winter wheat.

Wednesday, June 5, was a day of phenomenal rainfail all over Clark County, due to the influence of a "low" barometer of 29.55, which was central over eastern Nebraske that were like the control over eastern Nebraske that were like with the control over the control o Nebraska that morning. The rains here were quite welcome as but slight show-ers had fallen since May 8. The heavy precipitation occurred between four and nine in the evening, with slight hail and great electrical discharges. The rain gauge registered three and one-quarter inches, which is a pretty high record for so brief a time. The U. S. Weather Bureau Station at Keokuk, seven miles directly east of Seven Pines, reported 3.18 is reported planted. inches of precipitation. Lightning struck and destroyed the large hay barn of N. Frazee. The Keystone Church was damaged by lightning, a number of buildings were injured by the severe blow, and many fruit and forest trees were badly wrecked. The rain proved itself, indeed, showers of blessings to the oats, meadows, pickle crops, fruits and other products, and the land is now in the appears clean and bright and healthfu after the big washing

JASPER BLINES. Clark Co., N. E. Mo.

SCARCITY OF FARM HANDS.

J. R. Sage, Director of the Iowa Weather

and Crop Service, says:
"One of the worst features of the agricultural situation in Iowa is the general scarcity of desirable farm hands to be hired by the month or year. This is a most serious drawback in a season when farm work is retarded by adverse weather el. Country at \$100.0. Lims bean at 7% to \$3.5, bulk sold at \$4.50 to \$5.0. Feeding there pround.

HONEY—Comb—Dark at \$60c; bright amber, 1001c; white clover, 11½012%c- inferior and broken less. Extracted and strained—Southern in barrels at \$60c, extra fancy at \$4.60c; in cans at \$50c, extra fancy at \$4.60c; in cans at \$60c, extra fancy at \$4.60c; in cans at \$50c, extra fancy at \$4.60c; in cans at \$60c, extra fancy at \$4.60c; in cans at \$50c, extra fancy at \$4.60c; in cans at \$6.60c; in

prices, two or three cars of hogs being shipped from our station every week. Several car loads of stock steers—year-lings and two-year-olds—have been shipped to Illinois feeders lately. They were good ones, largely Shorthorns

White Faces. "Blood will tell."

MRS. H. M. CROSBIE.

Henry Co., Iowa, May 30. MISSOURI WEATHER AND CROPS.

The U. S. Department of Agriculture mate and Crop Bulletin of the Weath er Bureau, Missouri Section, for the week ending June 10, 1901, is as follows

The week just closed averaged slightly coler than usual in the central and orthwest sections, but in the eastern and southern portions of the state the tem perature was very near the normal. Local showers have fallen in all sections, but in general much more rain is needed. In a number of the northern counties the total ainfall, up to Saturday, ranged from 2 to nearly 4 inches, and portion of the central and southern sections received from 1 to 2 inches, but over a considerable part of the state there was less than 1 inch. Late reports, however, indicate that good showers feil in some of the central and southern counties Sunday and Sunday night. Excessive rains in a few of the extreme northern counties caused considerable damage by washing hill land and the overflowing of small streams. Much damage was also done in a few localities by high winds and hail, especially to

Athough sufficient rain has not yet fallen, except in some districts, to thoroughly break the drouth, considerable improve-ment in the general condition of growing crops is noted. In the northern section the nights have been too cool for corn, and further damage has been done by worms in some of the northern and eastern counties, but the crop as a whole has Improved considerably during the week. The fields are clean and with seasonable weather corn will make rapid progress. Much replanting is still being done in all sections. Wheat and oats have been much improved in some districts, but in general it is believed the rains have come too late to help the oat crop, which will be very light, except in some of the northwester counties. Wheat is generally filling rather better than was expected, but in many of the central and southern counties the yield will be much below the average. In most of the northern counties a good cror is almost assured. Wheat is beginning to turn in the southern counties and harvest has commenced in the extreme south. Where good rains have fallen meadows and pastures are improving, but the hay crop will be very light, except in some of the northwestern counties. Cotton is do-ing finely, except in Pemiscot county, where there is complaint of poor stand Flax is doing well in some localities, but in general the crop will be poor. Gardens, potatoes and small fruits will be greatly benefited by the rains. But few tobacco

berries is promised.

A. E. HACKETT, Section Director. Columbia, Mo., June 11.

MISSOURI CROP PROSPECTS.

Secretary Geo. B. Ellis, of the State Board of Agriculture, makes the follow-ing statement as to the Missouri crop

The general conditions for crops have been greatly reduced since May 1, on ac count of the drouth which has prevailed throughout the State. Only a few sec-tions report any rain of consequence, and most correspondents report no rain for from four to six weeks. If the drouth continues many days longer the damage may be much greater than now estimated, but should a general rain fall within the next week much of the damage would be

WHEAT.-The cool weather has been favorable for wheat, but the extreme drouth and the ravages of insects in some counties have cut down the condition of the crop from 99 for May 1, to 83, June 1. Northeast section shows a loss of 13 points, the Northwest only 2, the Central section the greatest loss, being 24, the Southwest 13 and the Southeast 16. CORN.—The cold and dry weather greatly retarded the germination of the seed and the growth of the plant, many reporting only about one-half stand. The cool weather has also been favorable for CORN.—The cold and, dry weather greatly retarded the germination of the seed and the growth of the plant, many reporting only about one-half stand. The cool weather has also been favorable for cut worms, wire worms, corn lice and moles, which are doing considerable damage. The average condition for the State is only 77, against 24 for the same time last year. The acreage compared with last year is 59. Northeast section 102, Northwest 100, Central 38, Southwest 58, Southeast 96. Ninety per cent of the crop is reported planted.

OATS.—A greater falling off is noticed in the oat crop than in any other. The moles, which are doing considerable damage. The average condition for the State is only 77, against 94 for the same time last year. The acreage compared with last year is 99. Northeast section 102, Northwest 100, Central 98, Southwest 98, Southeast 96. Ninety per cent of the crop

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At home; at a small cost. He operation, pain,
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use; Thomanade cured, Booklet, explaining
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TO INVESTORS

Investors in good mining stocks make big money. They could have made ten time

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Will give this opportunity to a limited number of investors. We have made arrangements to send out a party of prospectors who are personally known to the management to be unexcelled in their line, under the direct management of a well known goologist and mining expert, to thoroughly prospect an unusually well mineralised territory. After locating the ore bodies and deciding on the list to be developed, a non-assessable stock company will be incorporated under the laws, to equip and develop same. In order to pay the expenses of this prospecting 500 shares only will be sold at 5 caoh. Bach share to be exchanged for 1,000 shares of the incorporated non-assessable company, after which treasury stock in the new company will be sold at 5 or 10 cents a share for equipment and development purposes. Investors will realize the fact that they are getting for stock of the incorporated company \$40 or \$100.

Send orders at once as only 500 shares will be sold, after alionment of which all over subscriptions will be returned to sender. The first 500 received will get the advantage of this unusual opportunity. Address and make all orders payable to.

L. C. NICKERSON, Secretary,

Booms 4 to 8, 1639 Curtis Street, Denver, Colorado.

On orders for five shares or over monthly payments can be made of \$1 a share a month, if preterred.

the State being 84, compared with 97 for BED WETTING CURED. Sample FREE.

the State being \$4, compared with \$7 for 1900. Acreage \$7.

CLOVER.—Affected least of any meadow grass by dry weather, condition of clover is 79, compared with \$8 for 1900.

TIMOTHY.—The average for the State is only \$69, the highest \$9, in the Northwest, and lowest, 51, in Central. Many report unless rain falls in a few days meadows will be an entire failure. ws will be an entire failure.

PASTURES.—Getting short and some turning on meadows. The condition is placed at 74 for the state. MELONS.—Acreage % compared with

APPLES.-The condition has been re

duced from 53 for last month to 74 now A number report apples dropping badl; and in a great many counties, especially in the central and northeast sections, great deal of damage has been done by the canker worm, thousands of trees hav-ing been completely defoliated by the pest. An article on "How to prevent and kill the canker worm" will be published in the June bulletin and sent free to those applying to the Secretary, Columbia, Mo. PEACHES.-Reports generally good; av

age condition 91. GRAPES.—Condition good; average 92. The favorable prospects early in the eason encouraged the planting of or chards and a majority of correspondent

ing well. While the grass is short seems to be putting on fat and growth remarkably well. Twenty counties re-port slight loss from clover bloat, and twenty-seven report a few cases of black-

Columbia, Mo., June 5.

LETTER BOX.

FRANKLIN CO., E. CENTRAL MO.-The lack of rain is cutting the growing crops, especially clover and timothy. I don't think oats will pay for the cutting.

MARIES CO., CENTRAL MO.-We had a fine rain June 5, which broke the drouth that had continued from April 17. Oats and meadows are practically ruined Wheat will probably make half a crop corn is very small for the time of the year; planting is not yet completed. June 8. L. A. ROHR.

HOMING PIGEONS WANTED .- WILL you oblige me by sending me the address of someone in your locality who has white

ioming pigeons for sale.
Lincoln Co., Okl. A. E. TROTTER.
Can any of our readers supply the pigeons or tell where they can be ob-tained?

THE MO. FRUIT EXPERIMENT STA TION.—Can you advise me through your columns where is located the new Missouri Fruit Experiment Station, and how

one is to obtain the bulletins?

Florissant, Mo. A SUBSCRIBER.

The station is located at Mountain Grove, Wright County, Mo. John T. Stin-son is the Director, and application for bulletins should be made to him.

COW PEAS WANTED.—Can you give me the address of a St. Louis seed house from which I can get cow pea seed? My oats are a failure and I want to plant the ground to cow pease, but cannot get the variety I want in this vicinity.

Jasper Co., Mo. C. J. OSWALD.
Chas. E. Prunty, Market and Main streets, St. Louis, can probably furnish cow pea seed. His advertisement will be found in another column.

BINDER TWINE-Farmers wanted as agents CYCLONE CORN HUSKER ROSENTHAL HUSKER CO

SAVE A DOCTOR BILL
by having a supply of medicine on hand. Our Hig Brug Boo

EITHER OR BOTH OF THESE BOOKS

"AMONG THE OZARKS," The Land of Big Red Apples.

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Is the title of an illustrated pamphies giving detailed information relative to the mining region of Nornaera Arkanass, conceede by experts to be the richest sinc and lead mining district in the world. This district practically undeveloped, offers investors the opportunity of a lifetime. Address

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TICKETS

New York and Boston

BIG FOUR ROUTE,

10 Days STOP-OVER at BUFFALO * Pan-American

Exposition * LOOK at the SCHEDULE: v. St. Louis. 8:30 a. m. 12:00 noon 8:06 p.m. r. Buffalo ...2:55 a. m. 6:18 a. m. 7:30 p. m. r. New York. 2:55 p. m. 6:00 p. m. 8:00 a. m. r. Boston ... 4:55 p. m. 9:00 p. m. 10:34 a. m.

southeast 98. Minety per cent of the crop is reported planted.

KOATS.—A greater failing off is noticed in the out crop than in any other. The ground was generally wet when the outs were sown, followed by the cool dry weather, puts the crop in very poor condition. The average for the State is only 35, so compared with 35 one year ago. The highest average is now 73 in Northwest, lowest, 44 in Central, where but little is grown, at only 48.

FLAX.—Condition 76, compared with 26 of June 1, 1900. The greatest flax producing section, the Southwest, reports the condition at 79, the Northwest at 30 and Central, where but little is grown, at only 48.

Southeast 75, compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 78, respectively, for 1900. Acrange of cotton estimated at 112 compared with 180 and 180